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COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

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GAIL FARBER, Director

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

October 20, 2010

IN REPLY PLEASE EP-4
REFER TO FILE: A3454i

TO: Each Supervisor

FROM: Gail Farber
Director of Public Works

BOARD MOTION OF APRIL 20, 2010, ITEM NO. 44
CONVERSION TECHNOLOGIES IN LOS ANGELES COUNTY
PRELIMINARY SITING ASSESSMENT

On April 20, 2010, your Board unanimously approved three Memorandums of Understanding for three conversion technology demonstration projects and awarded a contract for consultant services for Phase III and Phase IV of the Southern California Conversion Technology Demonstration Project for the purpose of developing solid waste alternatives to landfills within Los Angeles.

At that time, your Board also instructed the Director of Public Works, in coordination with appropriate stakeholders, to assess the feasibility of developing a conversion technology facility at one or more County landfills; to identify other potentially suitable sites within Los Angeles County; and to report back to the Board within six months. The attached preliminary siting assessment is in response to this request.

The Board's action on April 20, 2010, sparked an unprecedented level of interest in conversion technologies, with many jurisdictions contacting Public Works requesting more information. Over the last six months, Public Works has reached out to all 88 cities as well as solid waste facility owners and operators in Los Angeles County, soliciting expressions of interest in developing a conversion technology facility. Additionally, Public Works hosted a Conversion Technology Informational Workshop on September 23, 2010, which was attended by over 200 representatives from the cities, solid waste industry, utilities, and environmental community.

Eleven stakeholders representing cities, solid waste companies, and industrial real estate developers have submitted 16 sites for consideration as follows:

- Landfills (Calabasas, Lancaster, Pebbly Beach, and Scholl Canyon)
- Materials Recovery and Transfer Facilities (3)
- Other Sites (9)

The attached site assessment provides a brief description of each of these sites, including advantages and challenges associated with each site. This preliminary site assessment considered technical factors such as site acreage, existing infrastructure, utilities, proximity to power and gas transmission lines, proximity to sensitive ecological areas, zoning, and other factors.

This assessment is not intended to be comprehensive nor is it designed to rank the sites. It is intended to establish a basis for future, more detailed technical and environmental assessments. This will assist the County in advancing the development of an optimal number of conversion technology projects within the County, which will assist in meeting the long-term solid waste management needs of County residents and businesses while generating local renewable energy, and retaining jobs and economic resources within the County.

Based on this general assessment, all of the sites identified appear feasible for development of a conversion technology facility and merit further consideration. It should be noted that prior to development of a conversion technology facility at any of these sites, and following the necessary technical environmental assessments, sites must comply with the requirements of all applicable Federal, State, and local permitting agencies.

Public Works will continue to work with interested stakeholders to identify potential project locations within the County, evaluate various technologies with Public Works' established criteria, and provide technical assistance to potential project developers. To keep your Board regularly informed on these developments, Public Works will submit a status report to your Board every six months.

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Attach.

cc: County Counsel
Chief Executive Office
Department of Public Health
Department of Regional Planning
Sanitation Districts of Los Angeles County
Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force

STATEMENT OF PROCEEDINGS FOR THE

REGULAR MEETING OF THE BOARD OF SUPERVISORS

OF THE COUNTY OF LOS ANGELES HELD IN ROOM 381B

OF THE KENNETH HAHN HALL OF ADMINISTRATION

500 WEST TEMPLE STREET, LOS ANGELES, CALIFORNIA 90012

Tuesday, April 20, 2010

9:30 AM

44. Recommendation: Approve Memoranda of Understanding (MOUs) for three separate conversion technology demonstration projects for the purpose of developing solid waste alternatives to landfills; authorize the Director of Public Works to implement the MOUs with CR&R Inc., International Environmental Solutions, and Rainbow Disposal Company, Inc.; award and authorize the Director to execute a four-year consultant services contract with Alternative Resources Inc., in a total amount not to exceed $1,290,600 for the Southern California Conversion Technology Demonstration Project Phase III and IV. **(Department of Public Works)** (10-0875)

Karen Bertram, James Binder, Chip Clements, Teri Cohan Link, Wayde Hunter, Mark McDannel, Paul Relis, Bruce H. Shuman, Gabrielle Weeks, Miguel Zermeno, Peter Zorba and Steve Zurn addressed the Board.

Pat Proano, Assistant Deputy Director, Department of Public Works, responded to questions posed by the Board. Coby Skye, Civil Engineer, Department of Public Works, was also present.

After discussion, Supervisor Yaroslavsky made a motion instructing the Director of Public Works to:

1. **In coordination with appropriate stakeholders, including the County Sanitation Districts and other appropriate County departments, assess the feasibility of developing a conversion technology facility at one or more County Landfills; and**

2. **Report back to the Board within six months, with findings regarding the development of a conversion technology facility at a County landfill, and identifying other potentially suitable sites within Los Angeles County.**

On motion of Supervisor Yaroslavsky, seconded by Supervisor Molina, this item was approved as amended.

Ayes: 5 - Supervisor Ridley-Thomas, Supervisor Yaroslavsky, Supervisor Knabe, Supervisor Antonovich and Supervisor Molina

Attachments:
Board Letter
Motion by Supervisor Yaroslavsky
Report
Video
Audio

The foregoing is a fair statement of the proceedings of the regular meeting held April 20, 2010, by the Board of Supervisors of the County of Los Angeles and ex officio the governing body of all other special assessment and taxing districts, agencies and authorities for which said Board so acts.

Sachi A. Hamai, Executive Officer
Executive Officer-Clerk
of the Board of Supervisors

By Sachi A. Hamai

Sachi A. Hamai
Executive Officer

LOS ANGELES COUNTY CONVERSION TECHNOLOGY PROJECT

Preliminary Siting Assessment

October 2010

A Report to the County of Los Angeles Board of Supervisors

1.0 INTRODUCTION

1.1 Background

For over a decade, the County of Los Angeles in coordination with the Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force has been recognized as a leader in researching and advancing the development of conversion technologies (CTs). CTs are non-combustion thermal, chemical, mechanical, and biological processes capable of converting post-recycled residual solid waste into useful products and chemicals, green fuels, and clean, renewable energy. These technologies provide an opportunity to reduce the amount of solid waste sent to landfills, create local green-collar jobs, and recover resources from our waste. Managing waste through CTs would reduce waste going to landfills and preserve landfill capacity in the County.

Consistent with the Los Angeles County Board of Supervisors' directives, the Department of Public Works (Public Works) has followed a deliberate multi-phased approach for evaluating and promoting the development of CTs. Part of this approach has been supporting Statewide legislation that would create a comprehensive regulatory framework for CT development in California consistent with your Board's direction to "support legislation which promotes the development of alternatives to landfills, such as CTs that protect public health and safety and the environment; establish a viable permitting process for these alternatives based on performance standards rather than prescriptive definitions; provide full diversion and greenhouse gas emission reduction credits for these alternatives under applicable State law; and provide that all energy produced by these CT facilities be designated as renewable energy." Several attempts have been made in California to pass legislation that would enable CTs to be developed in a streamlined fashion. This includes your Board's support for the County's sponsorship of AB 1939 (2000), five-signature letter of support for AB 1090 (2005), and other legislative efforts. To date, those attempts have not succeeded; however, the most recent legislative attempt, AB 222 (Ma/Adams), took the issue further than before with a wide base of supporters from all sectors in the State. Public Works will continue to work with the Chief Executive Office to pursue legislation that would benefit future CT development in the County.

Public Works' technology evaluation process began with Phase I, which included a preliminary evaluation, screening and ranking of CT companies and identification of material recovery facilities and transfer stations (MRF/TS) that could potentially host a CT facility. Phase II consisted of a detailed evaluation of selected technologies and MRF/TS sites. Following Phase II, Public Works issued a Request for Offers to the recommended companies and sites, which resulted in the establishment of three project development teams that connected a CT company with a local MRF operator and site owner.

On April 20, 2010, the Los Angeles County Board of Supervisors approved Memorandums of Understanding with these three project development teams and

initiated a consultant agreement with Alternative Resources, Inc. (ARI) to assist Public Works with implementing Phases III and IV of the CT effort. Phase III consists of providing technical assistance to the three project teams towards successful development. The purpose of the Phase III projects is to demonstrate the technical, economic, and environmental viability of such facilities in Southern California, and to establish pathways for permitting and financing commercial scale CT projects. These three demonstration projects are at various stages of development and include both thermal and biological conversion processes.

Phase IV focuses on facilitating the development of commercial-scale CT facilities in Los Angeles County for the purpose of providing alternatives to landfill disposal of post-recycled municipal solid waste (MSW). During Phase IV, the County will work with various key stakeholders, including cities solid waste facility owners and operators, and CT companies to encourage the development of mutually beneficial projects within the County. Similar to the demonstration projects in Phase III, the County would provide support for these projects in the form of technical support through the consultant contract with ARI, as well as assistance with permitting and grant and loan procurement, while maximizing private-sector investment.

Also on April 20, 2010, the Board unanimously adopted a motion instructing the Director of Public Works to:

a) *In coordination with appropriate stakeholders, including the County Sanitation Districts and other appropriate County departments, assess the feasibility of developing a CT facility at one or more County Landfills; and*

b) *Report back to the Board within six months, with its findings regarding the development of a CT facility at a County landfill, and identifying other potentially suitable sites within Los Angeles County.*

In accordance with the Board Motion, for the past six months, Public Works and ARI met with numerous stakeholders, including the County Sanitation Districts of Los Angeles County (Sanitation Districts), cities and solid waste facilities owners and operators to identify potential sites for development of CT facilities and discuss opportunities for collaboration. Public Works also made a presentation to the County's Regional Planning Commission regarding its Phases III and IV efforts, and will be returning for a follow-up presentation in October.

Based on these discussions, Public Works developed a preliminary list of potential sites within Los Angeles County that could host a CT facility. Development of this preliminary list included conducting outreach, attending meetings, developing evaluation criteria, and gathering information necessary to evaluate the sites. These meetings are summarized in Section 2 of this assessment.

This preliminary site assessment considered factors such as site acreage, existing infrastructure, utilities, proximity to power and gas transmission lines, proximity to sensitive ecological areas, zoning, and other factors. Based on this general

assessment, all of the sites identified appear feasible for development of a CT facility and merit further consideration.

It should be noted that prior to development of a CT facility at any of these sites, the site must undergo rigorous technical end environmental assessments as well as comply with the requirements of all applicable Federal, State, and local permitting agencies.

1.2 Purpose and Goals

The purpose of this assessment is to identify potential partners and suitable sites in Los Angeles County for development of commercial-scale CT facilities.

CTs have the potential to benefit the communities of Los Angeles County in many ways, including:

- Reducing the amount of solid waste sent to landfills
- Creating local, green-collar jobs
- Providing cost competitive solid waste management options after the Puente Hills Landfill closes
- Numerous potential environmental benefits, including:
    - Producing renewable energy and biofuels, which can displace fossil fuels
    - Net reduction of pollutants, including groundwater contamination, criteria air emissions, toxic air contaminants, and greenhouse gases
    - Reducing dependence on landfill disposal and exportation of waste to remote landfill disposal sites
    - Recovering additional recyclables and other valuable products from the waste stream that would otherwise be disposed

The County envisions one or more commercial CT facilities, ranging in size, being developed throughout the County as a means to provide long-term solid waste management capacity, to reduce dependence on landfills, and to stabilize waste disposal rates. Such facilities would process primarily post-recycled MSW, but could potentially process other materials such as food and yard waste, biosolids, non-recycled construction and demolition (C&D) materials, and other non-hazardous waste streams.

This effort reinforces the County's long-term strategy to diversify our solid waste management options and ensure a minimum of 15 years of capacity for the solid waste that is generated within the County. This includes continuing to enhance and expand our recycling and waste reduction programs; expansion of solid waste management infrastructure; and development of CTs.

2.0 METHODOLOGY

Public Works met with the Sanitation Districts, interested cities, communities, companies in the waste management sector, solid waste facility owners and operators, and industrial real estate developers to develop this list of preliminary sites. This report represents a first-level evaluation of potential sites for a CT project by identifying advantages and challenges of each site. This preliminary evaluation is not intended to be exhaustive of all potential sites in the County, and did not rank the sites evaluated. Suitable sites, potentially including additional sites not yet identified in this report, will be evaluated in more detail and presented in the next stage of site assessment as part of Phase IV of the County's CT Project.

2.1 Process for Identification of Interested Parties

As described below, several methods were used to reach out to both public and private parties to determine interest to participate in the Phase IV program.

Cities with adopted Resolutions of Interest

Prior to the initiation of Phase IV, four cities proactively adopted City Council resolutions in support of developing a CT project:

- **Calabasas** - in January 2006, the City of Calabasas unanimously adopted a resolution supporting the County's efforts and requesting consideration of a CT facility at the Calabasas Landfill.

- **Glendale** - in October 2007, the City of Glendale unanimously adopted a resolution supporting the County's efforts to evaluate and promote CTs, to support enabling legislation, and to work with the County to ensure that the Scholl Canyon Landfill is considered for any future development of CT facilities.

  In addition, on April 20, 2010, the Glendale City Council unanimously approved an action item authorizing the city manager to assemble a project team to research, analyze, report, and recommend a waste conversion project for the City of Glendale. Glendale has issued a Request for Proposals for an environmental consultant to assist them in this endeavor.

- **Lancaster** - in June 2008, the City of Lancaster unanimously adopted a resolution supporting the County's efforts to evaluate and promote CTs, to support enabling legislation, and to work with the County to ensure Lancaster is considered for any future partnerships for the development of CT facilities.

- **Long Beach** - in July 2008, the City of Long Beach unanimously adopted a resolution in support of the County's efforts to evaluate and promote CTs, to support enabling legislation, and to work with the County to ensure Long Beach is considered for any future partnerships for the development of CT facilities.

Copies of the resolutions adopted by these cities are included in Attachment 1.

Letters sent to all Cities, MRFs/TSs, and Landfills to solicit additional interest

In an effort to reach beyond those cities and waste industry companies that were already familiar with the County's CT efforts, Public Works sent a letter to the city managers and recycling coordinators in all 88 cities, as well as solid waste facility owners and operators including MRFs/TSs and landfills in Los Angeles County. See Attachment 2 for a copy of the letter that was distributed to all 88 cities and solid waste facilities in Los Angeles County, describing the County's efforts to promote CT development and soliciting expressions of interest.

This letter described the County efforts to promote CT development and solicited expressions of interest. Public Works developed and distributed an evaluation checklist, so that interested parties could easily identify and submit a site for consideration in this preliminary siting assessment.

Cities that have expressed interest subsequent to Board action

Since the Board's action on April 20, 2010, additional cities have expressed interest in coordinating with the County to evaluate the benefits of a CT facility. These cities contacted Public Works requesting meetings and/or suggesting possible sites. In some cases, the County team reached out to jurisdictions that it knew were involved already or interested in CT projects. At this time, cities and other public jurisdictions expressing interest include:

- Avalon
- Beverly Hills
- Carson
- Los Angeles
- Pico Rivera
- Santa Clarita
- Torrance
- Vernon

On October 5, 2010, the Vernon City Council approved a resolution authorizing the City to submit a letter of interest to the County to participate in the County's CT *Program. Please see Attachment 3.*

Private Interest

In addition to public jurisdictions, several private companies that have been involved in the solid waste and CT industry in California have also come forward at this time, expressing interest and/or offering potential sites. These include:

- BLT Enterprises (BLT)
- Calmet Services (PRR)
- Green City Development, Inc.
- Mustang Power (The Dewey Group)
- Waste Resources Recovery (WRR)

County Sponsored Workshop on September 23, 2010

To achieve maximum participation and provide the broadest opportunities for jurisdictions and private companies to participate in Phase IV efforts, the County conducted a CT workshop that was attended by approximately 200 individuals (either in person or via Webinar). At the workshop, the County explained the purpose and goals of the project, summarized progress to date for Phases I, II, III, and IV, and invited the participation of attendees. Representatives of the companies for the demonstration projects for Phase III gave brief presentations, as did several project proponents for Phase IV.

As a result of this workshop, it is anticipated that additional potential partners and sites not currently identified in this report will be considered.

2.2 Summary of Meetings with Cities, MRFs/TSs, and Landfills

Public Works has held numerous meetings with public jurisdictions and companies that have expressed interest to date. As a key stakeholder in this endeavor, Public Works met several times with the Sanitation Districts to discuss options for publicly-owned landfills, which the Sanitation Districts owns and/or operates within the County. Details of these sites are included in Section 3 of this Assessment.

Overall, the meetings were very constructive with the parties showing a willingness to work together for mutual benefit. The public jurisdictions and private companies were generally receptive to the possibility of hosting or contributing waste to a CT facility and enthusiastic about the potential of a CT to offer an alternative to landfilling. Many jurisdictions expressed the desire to develop additional options for managing their residual waste with the pending closure of the Puente Hills Landfill and the uncertainty and higher cost for waste management in the future. CT projects were also viewed as possible revenue generating facilities for those cities considering hosting regional facilities, and a means to stabilize costs in the future.

In addition to the meetings that have been held to date, several parties expressed interest but were unable to accommodate a meeting prior to the issuance of this report. These potential stakeholders include the cities of Compton, Culver City, Inglewood, Los Angeles, Santa Clarita, and Torrance, and as well as BLT Enterprises and Pacific

Coast Waste & Recycling, LLC, local solid waste companies who have a strong interest in CT development.

Public Works will continue to meet with these and other interested parties as it moves forward in the evaluation of potential sites as part of Phase IV.

3.0 SITE EVALUATION

This section of the report identifies potential sites and presents the results of the preliminary site review to determine suitable sites.

3.1 Potential Sites

Three figures are attached in the enclosures that identify sites within the County for potential project development. Figure 1 shows all areas within the County that are zoned for general industrial, heavy industrial, light industrial, miscellaneous (i.e. landfills, quarry zones), or for utility uses. Figures 2 and 3 identify all active landfills and MRF/TS facilities, respectively, that are located within Los Angeles County. Most closed landfill sites have been converted into other uses such as open space, parks or golf courses, and are also surrounded by other potentially incompatible uses, including residential development. As a result, closed landfill sites were generally not included in this preliminary siting assessment.

Figure 4 identifies a total of 16 potential CT sites that were specifically identified and brought forward by 11 stakeholders. Further discussion is needed with the site owners and operators in order to determine their level of interest and whether or a not a project at any of these sites would be mutually beneficial and financially viable.

This preliminary siting assessment will be included as an enclosure to the State-mandated Countywide Siting Element that is currently being revised. The Siting Element must demonstrate that there is a countywide or region-wide minimum of 15 years of combined permitted disposal capacity through existing or planned solid waste disposal and transformation facilities or through additional strategies. Furthermore, all facilities that require a Solid Waste Disposal Facility Permit must be identified in the Siting Element and meet the facility siting criteria established in the Siting Element. Due to current regulatory uncertainty, it is still unclear whether or not certain CT facilities will require a Solid Waste Disposal Facility Permit. As such, Public Works is proactively including this preliminary list of sites in the Siting Element to fulfill that requirement.

3.2 Overview Description of Each Site

In this section, basic information regarding each of the potential sites provided to Public Works by each of the ten stakeholders is presented below. Public Works will continue to meet with these and other interested parties as it moves forward in the evaluation of potential sites as part of Phase IV.

Stakeholder: City of Avalon

The site identified is on the small operating landfill remotely located on the western tip of Catalina Island. It serves primarily the town of Avalon, where the vast majority of the island population lives and where most tourism occurs. The landfill is owned by the City of Avalon, but is located in unincorporated Los Angeles County. It is operated by

Seagull Sanitation under contract to the City of Avalon. The current zoning (landfill) and the surrounding land use (vacant, rugged terrain, and the wastewater treatment plant) are compatible with a CT project.

Stakeholder: City of Calabasas

The City of Calabasas has identified the Calabasas Landfill as a potential site for a CT project. The facility is owned by Los Angeles County and operated by the Sanitation Districts. In 2006, the City of Calabasas adopted a resolution of support for the County's CT efforts and specifically requested consideration of a CT facility at the Calabasas Landfill.

Public Works has met with the Sanitation Districts and reviewed potential sites on the landfill property. Advantages of this site include the fact that it is an operating landfill, its use is supported as a site by the City of Calabasas and the Sanitation Districts, access off the freeway is excellent and there could be synergies with the existing landfill gas and energy recovery system. Challenges include the limited space within the property boundary, most of which is mountainous terrain; and the location of the landfill within a National Recreation Area. Current Federal regulations do not allow new waste disposal sites to be located in a national park. Due to the current regulatory uncertainty whether a CT facility is considered a disposal facility, this may require changes to Federal regulations and Federal permits as well as State and local approvals. In addition, the landfill historically received about 1,800 tons per day (tpd), but now receives about 800 tpd due to the recession and major waste haulers shipping their waste to their own landfills. Additional tonnage would likely be necessary to allow both the landfill and a CT facility to be financially viable.

Stakeholder: Calmet Services

Calmet Services, a solid waste hauling company in Los Angeles County, is in the preliminary stages of considering a CT facility that would be collocated at their MRF/TS in Paramount. The CT project could take advantage of the existing infrastructure at MRF/TS, owned and operated by Calmet Services. The site is zoned industrial and has good truck access and full utilities. The company is looking at various conversion technologies and has not yet settled on a preferred one. Calmet is the franchise hauler for several cities in the central Los Angeles basin.

This site has the advantage of being co-located with an existing MRF/TS facility and can thus make use of the existing infrastructure and processing capability. The site is of sufficient size, is zoned industrial, fully serviced with utilities, and is surrounded by other industrial uses and the Burlington Northern Santa Fe (BNSF) main line. The site also has very good truck access.

Stakeholder: City of Carson

Four sites were proposed by representatives from the City of Carson's Planning and Public Works Departments in recent meetings. Two sites are within refinery complexes,

and are industrially-zoned and currently undeveloped. Additional discussion will need to take place between the City of Carson and the property owners to determine whether a project would be feasible and mutually beneficial. Another potential advantage of locating a CT facility on these sites is the potential for these refineries to use the products from a CT facility, such as biogas, syngas, heat, or hydrogen.

The third site is a 14-acre corporate yard owned by the City and currently utilized for City public works operations. The City is planning to relocate their corporate yard, which would free up this land. This is an advantageous site due to its industrial zoning, access to rail and utilities, and City ownership.

The fourth site proposed by the City is the Joint Water Pollution Control Plant (JWPCP) which is owned and operated by the Sanitation Districts in the City of Carson. There are possible synergies between the treatment plant and the CT project in that the latter can manufacture products useful to the former such as biogas, electricity, transportation fuel, and heat. The advantages of this site are that it is located within the treatment plant in a heavy industrial area with full utilities and good access. Additional discussions are needed with the Sanitation Districts to determine if a project would be feasible and mutually beneficial.

Stakeholder: City of Glendale

The City of Glendale is investigating the possibility of utilizing Scholl Canyon Landfill as a potential site for a CT project. This 500-acre landfill is owned by the City (90 percent) and the County (10 percent), and is operated by the Sanitation Districts under a Joint Powers Authority between the City and the County. The wasteshed for the landfill is restricted to the cities of Glendale, Pasadena, South Pasadena, La Canada/Flintridge, Sierra Madre, and San Marino. The City also collects all residential and most of the commercial accounts within Glendale.

At present rate of fill, the landfill has approximately 20 years of life, plus another 10-20 years with a planned expansion. Utilities are available, including a transmission line that runs across the site.

On April 20, 2010, the Glendale City Council unanimously approved an action item authorizing the city manager to assemble a project team to research, analyze, report, and recommend a waste conversion project for the City of Glendale. Glendale has issued a Request for Proposals for an environmental consultant to assist them in this endeavor.

The advantages of this site are that it is an active landfill with a full solid waste facility permit, and primarily owned by the City of Glendale who has shown very strong support for a CT project and is continuing to pursue development of a CT project. The site is well positioned in an urban area. Access is excellent and potential synergy exists with the exiting landfill gas treatment and pipeline transportation system. A potential challenge is the limited space within the property boundary, much of which is mountainous terrain.

Stakeholder: Green City Development, Inc.

Green City Development, Inc. is an industrial land developer who owns a 115-acre parcel within the City of Santa Clarita. The site was previously used for oil drilling, but is not currently in operation, and the owner is proposing to develop a MRF and CT facility on the site, among other uses. The site has available utilities and truck access. Advantages of this site are that it is owned by the proponent, and has sufficient space, utilities, truck access, proper zoning, and is identified as an energy generation site by the California Energy Commission.

Stakeholder: City of Lancaster

The City of Lancaster met with Public Works to discuss how CTs may align with their city's environmental objectives. In 2008, the City of Lancaster unanimously adopted a resolution supporting the County's efforts to evaluate and promote CTs, to support enabling legislation, and to work with the County to ensure Lancaster is considered for any future partnerships for the development of CT facilities.

Two potential sites were discussed, the Lancaster Landfill which is located in the unincorporated area near the City, and a solar power plant located within the City boundaries. Waste Management, Inc., the owner and operator of the Lancaster Landfill, has been investing in CT companies and looking to possibly build a project at or near the landfill. Public Works may pursue additional conversations with Waste Management, Inc., and the City of Lancaster to determine if a project is mutually beneficial.

Also close to the Lancaster Landfill is the new Sun Tower Power Sierra Generating Station. The 5 MW solar power plant is located on a 95-acre parcel of which it is leasing 50 acres. Advantages of the site include sufficient space, utilities, truck access, and proper zoning. This site will require more discussion with both the City and Sun Tower Power to determine if a project is mutually beneficial.

Stakeholder: City of Long Beach

In July 2008, the City of Long Beach unanimously adopted a resolution in support of the County's efforts to evaluate and promote conversion technologies, to support enabling legislation, and to work with the County to ensure Long Beach is considered for any future partnerships for the development of CT facilities.

Public Works, in recent meetings with the City of Long Beach, discussed the possibility of siting a CT facility within the Port of Long Beach or land owned by the Port. Given the industrial zoning, proximity to utilities, truck and rail access, opportunities may exist to develop a CT facility at one or more locations. Public Works will continue to discuss options with the City and Port of Long Beach to determine if a project would be feasible and mutually beneficial.

Stakeholder: Mustang Power

Mustang Power, a CT development company, is proposing a 10-20 acre portion of a 71-acre industrially zoned site that includes approximately 14 acres previously operated as a landfill. Mustang Power owns the site in the Sylmar area in partnership with an investor group. The site has available utilities and easy truck access to the 210 and 118 freeways. Advantages of this site are that it is owned by the proponent, and has sufficient space, utilities, truck access, proper zoning, does not conflict with residential areas, and is located in a County Unincorporated area.

Stakeholder: Valley Vista Services

Valley Vista Services along with Onsite Power are in the process of developing a CT project at Valley Vista's Grand Central Recycling & Transfer Station in the City of Industry. The technology utilized would be the UC Davis Anaerobic Digestion process. The entire site of roughly 25 acres houses the MRF/TS, collection truck yard, corporate headquarters, and fueling stations. The CT facility would receive approximately 125 tpd of food waste and 125 tpd of green waste in the first phase, with the possibility to expand eventually. The project would produce pipeline quality biomethane for injection into the Gas Company distribution system. The site is fully developed and surrounded by industrial uses. This site has the advantage of being co-located with an existing MRF/TS facility and can thus make use of the existing infrastructure and processing capability. The site is of sufficient size, is zoned industrial, fully serviced with utilities, and is surrounded by other industrial uses. The site also has very good truck access.

Stakeholder: Waste Recovery and Recycling (WRR)

Public Works met with Waste Recovery and Recycling (WRR), a solid waste hauler in Los Angeles County, who is interested in co-locating a CT facility at their MRF/TS in an unincorporated area near Gardena. This site has the advantage of being co-located with an existing MRF/TS facility and can thus make use of the existing infrastructure and processing capability. The site is of sufficient size, is zoned industrial, fully serviced with utilities, is surrounded by other industrial uses, and is located in a County Unincorporated area. The site also has very good truck access. WRR is focusing on a thermal CT process.

4.0 NEXT STEPS

The next step in the Phase IV process will include a detailed comparative evaluation of the sites that were identified in this preliminary assessment. This detailed analysis will include gathering additional information that was not available at the time of the preliminary screening assessment, assessing site aspects expanding beyond the screening criteria, and continuing discussions with prospective stakeholders.

In addition to siting efforts, Public Works will continue evaluation of viable technology vendors to participate in Phase IV efforts. The conversion technology industry has matured and expanded since Public Works last conducted technology evaluations as part of Phases I and II. As such, Public Works will review the qualifications of technology vendors interested in participating in a Phase IV project and the viability of site specific projects in light of the needs expressed by the Stakeholders. Public Works will continue to work with the stakeholders identified in this Assessment, as well as others, to determine their goals and objectives, to evaluate and select a viable technology and project configuration, and to facilitate the development of suitable facilities.

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LOS ANGELES COUNTY
CONVERSION TECHNOLOGY PROJECT

Preliminary Siting Assessment

ATTACHMENTS AND FIGURES

ATTACHMENT 1

CITY RESOLUTIONS
(Calabasas, Glendale, Lancaster, Long Beach)

RESOLUTION NO. 2006-997

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CALABASAS, CALIFORNIA, SUPPORTING THE SOLID WASTE CONVERSION TECHNOLOGY AND REQUESTING A FACILITY AT THE CALABASAS LANDFILL

WHEREAS, the 2003-2004 California Waste Composition Study indicates that approximately 40 million tons of waste is landfilled in California; and

WHEREAS, Zero Waste is a primary goal of the California Integrated Waste Management Board's strategic plan; and

WHEREAS, Assembly Bill 2770 required the California Integrated Waste Management Board (CIWMB) to research and evaluate new and emerging non-combustion thermal, chemical, and biological technologies and to submit a report to the Legislature; and

WHEREAS, the Conversion Technology Report submitted to the Legislature supported the following major findings:

1. Conversion technologies are distinct from landfills and incineration, and can result in substantial environmental benefits for California, including the production of renewable energy, reduced dependency on fossil fuels, and reduction of greenhouse gases.
2. Conversion technologies can enhance landfill diversion efforts and can be complementary to the existing recycling infrastructure. The conversion technology facilities complement the local infrastructure and that they maintain or enhance the environmental benefits and economic sustainability of the Integrated Waste Management System.
3. Conversion technologies would be expected to meet federal, state, and local air emissions requirements. Local air districts in California are best equipped to review and condition conversion technology facilities.

WHEREAS, Assembly Bill 1090 reprioritizes California's waste management hierarchy to include conversion technologies and properly define these technologies based on sound science and their environmental impacts and benefits in relation to other solid waste management options.

WHEREAS, there are multiple benefits to the Conversion Technologies such as:

1. Waste materials are reduced in volume by up to 90%, significantly reducing the need for landfill space. In some cases the residual ash can be used in construction products such as concrete or brick production.

2. Synthetic gas or methane produced by these processes is used to generate electricity.
3. Co-locating these facilities with a comprehensive recycling and materials recovery operation assures that most inorganic materials and other recoverable items are removed for recycling or reuse prior to conversion processing. Advanced removal of inorganic items also reduces ash and other waste by-products requiring landfilling.
4. Significant reduction in physical space requirements compared to landfills.

WHEREAS, the Environmental Commission received testimony from the Los Angeles County engineering staff on the solid waste conversion technology during the public meeting of December 6, 2005 and made a recommendation to the City Council for approval of this resolution.

NOW THEREFORE, BE IT RESOLVED AS FOLLOWS:

1. With landfill space at a premium, and disposal rates estimated to increase, Los Angeles County must invest in landfill alternatives, such as conversion technologies, that inhibit disposal rates, generate jobs, and utilize abundant biomass and organic waste material in an environmentally beneficial manner.

2. Waste recycling must be extended to establish a statewide recycling goal and local planning requirements, develop an extensive recycling and composting infrastructure, increase removal of hazardous materials from the waste stream, establish advanced disposal fees and other manufacturer responsibility measures in conserving natural resources and reducing our dependence on landfills.

3. In supporting efforts by the Alternative Technology Advisory Subcommittee, the Calabasas City Council strongly requests that a construction of conversion technology facility at the Calabasas Landfill be considered for any future planning of facilities within Los Angeles County.

PASSED AND APPROVED AND ADOPTED this _____ day of _____ 2006.

_____
Barry Groveman, Mayor

ATTEST:

_____
Gwen Peirce, Assistant City Clerk

APPROVED AS TO FORM:

_____
Michael Colantuono, City Attorney

Adopted
10-23-07
Weaver/Quintero
All Ayes

RESOLUTION NO. 07-188

A RESOLUTION OF THE COUNCIL OF THE CITY OF GLENDALE, CALIFORNIA, SUPPORTING THE DEVELOPMENT OF SOLID WASTE CONVERSION TECHNOLOGIES

WHEREAS, each year, over 40 million tons of waste are disposed in California; and

WHEREAS, the County of Los Angeles has evaluated conversion technologies, which are capable of converting post-recycled residual solid waste into marketable products, green fuels, and clean, renewable energy, and identified a number of viable technologies for Southern California; and

WHEREAS, there are significant. potential benefits for the City of Glendale from co-locating a conversion technology facility at a solid waste facility, such as:

1. Conversion technologies can result in substantial environmental benefits, including preserving land and resources, reducing dependency on fossil fuels, and reducing air and water pollution, including greenhouse gas emissions.
2. Conversion technologies can enhance landfill diversion efforts and can be complementary to the existing recycling infrastructure, thereby reducing the volume of materials disposed at landfills and maintaining long-term landfill capacity.
3. Conversion technologies can recover marketable products and generate green fuels and renewable electricity, thereby enhancing the economic viability of the integrated waste management system and locally producing renewable energy resources to meet local demand.

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF GLENDALE,

SECTION 1. That the Council supports the County of Los Angeles' efforts to evaluate and promote development of conversion technologies that minimize landfill disposal, create "green" jobs, and utilize waste material in an environmentally beneficial manner.

SECTION 2. That City Public Works staff are authorized and directed to work with the County of Los Angeles to ensure that the Scholl Canyon Landfill is considered for any future development of conversion technology facilities.

SECTION 3. That the City's legislative advocates are authorized and directed to work, in concert with the County of Los Angeles, to support legislation that establishes a viable permitting process for conversion technologies based on performance standards rather than prescriptive definitions and provides full diversion credit for these technologies under the California Integrated Waste Management Act.

Adopted this 23rd day of October, 2007.

Mayor, City of Glendale

ATTEST:

City Clerk

APPROVED AS TO FORM

CITY ATTORNEY

DATE 10-12-07

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES)
CITY OF GLENDALE)

I, Ardashes Kassakhian, City Clerk of the City of Glendale, do hereby certify that the foregoing Resolution No. was duly adopted by the Council of the City of Glendale, California, at a regular meeting held on the 23rd day of October, 2007 and that the same was adopted by the following vote:

Ayes: Drayman, Quintero, Weaver, Yousefian, Najarian

Noes: None

Absent: None

Abstain: None

City Clerk

lancaster ca
it's positively clear.

July 3, 2008

Supervisor Yvonne B. Burke, Chair
Los Angeles County Board of Supervisors.
866 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles, California 90012

Re: CITY OF LANCASTER LETTER OF INTEREST FOR THE DEVELOPMENT OF CONVERSION TECHNOLOGIES IN LOS ANGELES COUNTY

Dear Supervisor Burke:

On behalf of the City of Lancaster, I wish to express our interest and support for the development of conversion technologies in Los Angeles County, and the Antelope Valley in particular. As a leader in resource conservation and environmental stewardship, Lancaster advocates local implementation of conversion technologies encompassing a variety of processes that will convert municipal waste into renewable energy, bio-fuels, and will enhance landfill diversion efforts.

The City of Lancaster applauds and supports the County's efforts to evaluate and promote development of conversion technologies that minimize landfill disposal, create "green collar" jobs, and utilize waste material in an environmentally responsible and beneficial manner. We look forward to the continued opportunity to work with the County of Los Angeles to ensure that Lancaster is considered for any future partnerships for the development of a conversion technology facility.

A resolution of the City Council adopting the development of conversion technologies in the City of Lancaster is attached. If you have any questions, please contact Mr. Peter Zorba at (661)723-6234 or at pzorba@cityoflancasterca.org.

Sincerely,

R. Rex Parris
Mayor

RRP:PZ:vp

Attachment: Resolution No. 08-49

cc: Michael D. Antonovich, Los Angeles County Supervisor, 5th District
Mark Bozigian, City Manager, City of Lancaster
Randy Williams, Public Works Director, City of Lancaster
Peter Zorba, Environmental Engineer, City of Lancaster
Coby Skye, Alternative Technology Advisory Subcommittee, Los Angeles County Department of Public Works, Environmental Programs Division

RESOLUTION NO. 08-49

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF LANCASTER, CALIFORNIA, ADOPTING THE DEVELOPMENT OF CONVERSION TECHNOLOGIES IN THE CITY OF LANCASTER

WHEREAS, each year, over 40 million tons of waste are disposed in California; and

WHEREAS, the County of Los Angeles has evaluated conversion technologies, which are capable of converting post-recycled residual solid waste into marketable products, green fuels, and clean, renewable energy, and identified a number of viable technologies for Southern California; and

WHEREAS, there are significant potential benefits for the City of Lancaster from hosting a conversion technology facility, such as:

1. Conversion technologies can result in substantial environmental benefits, including preserving land and resources, reducing dependency on fossil fuels, and reducing air and water pollution, including greenhouse gas emissions.
2. Conversion technologies can enhance landfill diversion efforts and can be complementary to the existing recycling infrastructure, thereby reducing the volume of materials disposed at landfills and maintaining long-term landfill capacity.
3. Conversion technologies can recover marketable products and generate green fuels and renewable electricity, thereby enhancing the economic viability of the integrated waste management system and locally producing renewable energy and fuel resources to meet local demand.

NOW, THEREFORE, BE IT RESOLVED AND ORDERED BY THE CITY COUNCIL OF THE CITY OF LANCASTER, STATE OF CALIFORNIA, THAT:

Section 1. The Council supports the County of Los Angeles' efforts to evaluate and promote development of conversion technologies that minimize landfill disposal, create "green collar" jobs, and utilize waste material in an environmentally beneficial manner.

Section 2. City Public Works staff are authorized and directed to work with the County of Los Angeles to ensure that the City of Lancaster is considered for any future partnerships for the development of conversion technology facilities.

Section 3. The City's legislative advocates are authorized and directed to work, in concert with the County of Los Angeles, to support legislation that establishes a viable permitting process for conversion technologies based on performance standards rather than prescriptive definitions, and provides full diversion credit for these technologies under the California Integrated Waste Management Act.

PASSED, APPROVED and ADOPTED this 24th day of June, 2008, by the following vote:

AYES: Council Members: Mann, Marquez, Sileo, Vice Mayor Smith, Mayor Parris

NOES: None

ABSTAIN: None

ABSENT: None

ATTEST:

GERI K. BRYAN, CMC
City Clerk
City of Lancaster

APPROVED:

R. REX PARRIS
Mayor
City of Lancaster

STATE OF CALIFORNIA }
COUNTY OF LOS ANGELES } ss
CITY OF LANCASTER }

CERTIFICATION OF RESOLUTION
CITY COUNCIL

I, Shirley Mahoney, Assistant City Clerk City of Lancaster, California, do hereby certify that this is a true and correct copy of the original Resolution No. 08-49, for which the original is on file in my office.

WITNESS MY HAND AND THE SEAL OF THE CITY OF LANCASTER, on this 26th day of June, 2008.

(seal)

City of Long Beach

Legislative File Number 08-0670 (version 1)

Recommendation to respectfully request City Council support the County of Los Angeles' efforts to evaluate and promote development of next generation conversion technologies that minimize landfill disposal, create "green collar" jobs, and utilize waste material in an environmentally beneficial manner.

Request that City Manager work with the County of Los Angeles to ensure that Long Beach is considered for any future partnerships for the development of conversion technology facilities.

Request City's legislative advocates work with the County of Los Angeles to support legislation that establishes a viable permitting process for conversion technologies that protect public health, safety and the environment, and provides full diversion credit for these technologies under the California Integrated Waste Management Act.

The City of Long Beach is among the nation's leaders in waste diversion due to the thoughtful planning and investment by city leaders and the Environmental Services Bureau in the Southeast Resource Recovery Facility (SERRF), which began commercial operation in 1988. According to City documents, SERRF is a publicly owned solid waste management facility that uses mass burn technology to reduce the volume of solid waste by about 80% while recovering electrical energy. The facility is owned by a separate authority created by a joint powers agreement between the Sanitation Districts of Los Angeles County and the City of Long Beach, but is operated by a private company under contract. Residential and commercial solid waste from Long Beach and surrounding contracting communities is combusted in high temperature boilers to produce steam, which in turn is used to run a turbine-generator creating 36 megawatts of electricity. The SERRF site generates enough power each year to supply 40,000 residential homes with electricity and has reduced solid waste from entering landfills by over four million cubic yards. In addition, the SERRF site has allowed the City to keep the cost for waste management significantly below average, passing the savings on to our residents in their monthly bills. Each month, an average 825 tons of metal are recycled rather than sent to a landfill. As a public service and at the request of law enforcement agencies within California, SERRF began destroying narcotics and drug related paraphernalia in 1992. The program has been a tremendous success. SERRF has destroyed an average of 17,000 pounds of narcotics each month. This commitment by the City of Long Beach to assist in the removal of illegal narcotics from our cities' streets has saved law enforcement agencies hundreds of staff hours and thousands of dollars in alternative disposal costs.

The County of Los Angeles has evaluated next generation conversion technologies, which

are capable of converting post-recycled residual solid waste into marketable products, green fuels, and clean, renewable energy, and identified a number of viable technologies for Southern California. This next generation thermal conversion technology differs from our current SERRF technology in that it eliminates the residue combustion ash, which is currently treated and sent to an authorized landfill to be used as road base material. This difference is significant, since the only local landfill permitted to receive the ash is Puente Hills and it is scheduled to close in 2013.

Our existing SERRF site provides a valuable service to the residents of our city, pushing our diversion rate to 69% and converting our waste to electricity. However, next generation conversion technologies can further enhance our efforts to become our own "wasteshed", Conversion technologies may also provide us with the electricity necessary to support increased demand from cold-ironing in the harbor and Port. Just as our predecessors pursued technologies reducing the economic and environmental impacts of sending waste to local landfills, it makes sense that we explore opportunities to increase our conversion rate, better serve our residents, and further diminish our footprint on the environment.

None.

None.

Approve recommendation.

Suja Lowenthal
Councilmember, Second District

ATTACHMENT 2

LETTER TO CITIES

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (626) 458-5100
http://dpw.lacounty.gov

GAIL FARBER, Director

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

IN REPLY PLEASE
REFER TO FILE: EP-4

August 18, 2010

NAME
TITLE
ADDRESS
CITY, STATE, ZIP

Dear NAME:

INVITATION TO PARTICIPATE IN EFFORTS TO DEVELOP CONVERSION TECHNOLOGY FACILITIES IN LOS ANGELES COUNTY

The Los Angeles County Department of Public Works and the Integrated Waste Management Task Force continue to pursue the development of vital conversion technologies to help reduce our dependence on landfill disposal and provide new sources of renewable energy Enclosed please find a fact sheet with additional information regarding the program.

On behalf of both Public Works and the Task Force, I would like to invite you to join us in this critical effort by participating in an informational workshop, to be held on **Thursday, September 23, 2010,** from 8 a.m. to 1 p.m. at Public Works Headquarters, 900 South Fremont Avenue, Alhambra, California. Additional information regarding the workshop, including registration, is available online at www.SoCalConversion.org. Complimentary continental breakfast and lunch will be provided.

The workshop will outline three conversion technology demonstration projects recently approved by the Los Angeles County Board of Supervisors and provide the opportunity for you to learn about the County's conversion technology program and discuss regional conversion technology developments.

In addition, we would like to know if you have a site that may be suitable for development of a conversion technology facility Should you have interest in participating, we urge you to fill out and return the checklist as soon as possible so that your city can be properly represented in the report to the Los Angeles County Board of

Supervisors in October Expressing interest by filling out the checklist does not commit you to the project. It is a first step in evaluating if a project would be mutually beneficial.

If you have any further questions, or would like to meet to discuss the conversion technology program, please contact Mr Coby Skye of this office at (626) 458-5163, Monday through Thursday, 7 a.m. to 5.30 p.m., or by email at cskye@dpw.lacounty.gov.

Very truly yours,

GAIL FARBER
Director of Public Works

Pat Proano

PAT PROANO
Assistant Deputy Director
Environmental Programs Division

Enc.

TM:kp
P:\SEC\Convr Tech Mayor Mail Merge_8-17-10

cc: Each City Mayor in Los Angeles County
Each City Recycling Coordinator in Los Angeles County
Each Member of the Los Angeles County Integrated Waste Management Task Force

Checklist for Preliminary Site Information

Contact Person		**Site Information**	
Name:	_____	Site Name:	_____
Affiliation:	_____	Address/ Location:	_____
Address:	_____		_____
	_____		_____
Telephone:	_____		_____
Email:	_____		_____

Please provide as much information as possible

How big is the site (in acres)*?

Are there any known site characteristics that would reduce the acreage usable for project development, such as floodplain, wetlands, endangered/threatened species and/or critical habitat, underlying fill material (i.e. a landfill), etc.? Please describe and quantify, if possible.

**Minimum of 6-8 acres is recommended to support a commercial CT facility that is not co-located with an existing solid waste facility, larger sites (15-25 acres) provide flexibility to support larger-scale projects that may be more economically viable. Co-location with usable infrastructure can reduce size requirements.*

Please describe the current and planned future use of the site, e.g., undeveloped land; previously used and currently inactive; in current use for other purposes, etc.

Please describe current use of the properties adjacent to the subject site

Please identify existing infrastructure on the site that could be usable for a project, such as roads, weigh scales, receiving and storage buildings, recycling equipment, etc., (e.g., as may be affiliated with an existing waste management facility).

Please identify the utilities that are available at the site, such as water, reclaimed water, sewer, gas, electricity, and telephone.

What is the location of the nearest gas transmission main, electrical transmission line (i.e., 13.8 kV or greater), and/or substation for potential interconnection for sale of pipeline quality gas and/or electricity?
What is the zoning of the site (e.g., light, medium or heavy industrial, etc.)?
Does the site include a permitted Solid Waste Facility (e.g. MRF, transfer station, landfill)? If the project is anticipated to be co-located with an existing solid waste management facility: What is the current permitting capacity of that facility (tons per day)? What is the average amount of waste received (tons per day)?
Is the site located within a Coastal Zone, designated as Williamson Act land, Sensitive Ecological Area, or otherwise in an area that could complicate permitting and project development efforts?
Is the site within an Environmental Justice Zone, or are there other environmental justice issues or concerns related to the site?
What other types and quantities of solid waste may be available for a project (e.g., green waste, construction & demolition debris, industrial waste, etc.)?
Please specify who is the owner of the site, and if applicable, the operator of any existing operations at the site:

Please return your completed evaluation form to:

Los Angeles County Department of Public Works
Environmental Programs Division
ATTN: Coby Skye, Project Manager
900 S. Fremont Ave, Annex 3rd Floor
Alhambra, CA 91803

OR by e-mail to
cskye@dpw.lacounty.gov

Background

Since 2004, Public Works in conjunction with the Los Angeles County Integrated Waste Management Task Force has been evaluating and pursuing the development of conversion technologies (CTs) to reduce our dependence on landfill disposal. Conversion technology facilities include biological, non-combustion thermal, mechanical, and/or chemical processes that convert solid waste to renewable energy (electricity and fuels) and other beneficial products, providing greater than 80 percent diversion from landfill disposal and reduced air emissions. Such technologies are often paired with pre-processing equipment that recovers additional recyclable material while also preparing the waste for conversion.

To date, the County has followed a deliberate multi-phased approach in evaluating and promoting the development of conversion technologies.

- Phase I included a preliminary evaluation, screening and ranking of CT companies, and identification of material recovery facilities and transfer stations (MRF/TS) that could potentially host a CT facility

- Phase II consisted of a detailed evaluation of selected technologies and MRF/TS sites, followed by a Request for Offers that was issued to recommended companies and sites.

- Phase III is currently underway and focuses on County support to construct three CT demonstration projects in Southern California with companies that responded to the County's Request for Offers. The purpose of these projects is to demonstrate the technical, economic, and environmental viability of such facilities in Southern California. These three demonstration projects are at various stages of development and include both thermal and biological conversion processes

- The County has recently initiated Phase IV activities, which focus on establishing larger, commercial-scale CT facilities in Los Angeles County for the purpose of providing alternatives to landfill disposal of post-recycled municipal solid waste (MSW) The County envisions one or more commercial CT facilities being developed in Los Angeles County as a means to provide long-term solid waste management capacity for post-recycled MSW residuals destined to landfills, to reduce our dependence on exporting waste to remote landfill sites outside of the County, and to stabilize waste disposal rates.

Benefits of Conversion Technologies

If your City participates as a host community and/or partner in the development of a commercial CT facility, the possible advantages of such a project include

- reduction in truck traffic due to onsite conversion of residual waste into energy
- extension of landfill life due to conversion of waste into energy
- potential for revenue and/or use of energy and other products from the CT project
- provision of a long-term, reliable, and cost-competitive means of solid waste management for your community's municipal solid waste
- if the facility is to be a regional facility, the potential for host community benefits
- potential for additional City revenue and/or use of energy and other products from the CT project (e.g electricity, transportation fuels, aggregate, compost, etc.)
- assistance from the County in applying for grants and other types of financial assistance and funding for the CT project
- assistance from the County in land use and environmental permitting
- assistance from the County in public relations and outreach activities

Next Steps

At the request of the Los Angeles County Board of Supervisors, Public Works is preparing a Siting Feasibility Study identifying potential conversion technology sites within Los Angeles County This study will be presented to the Board of Supervisors in October 2010. In advance of this study, we will be hosting a special workshop on **Thursday, September 23, 2010,** beginning at 8 a.m. here at 900 South Fremont Avenue, Alhambra, California 91803 The purpose of this workshop is to provide more information about the County's conversion technology project and answer questions from interested parties regarding the potential benefits of participation

The County would welcome the opportunity to identify your City as an interested participant, and to meet with you to review your goals and objectives and to obtain information on your potential site Expressing interest does not commit you to participate, it is the first step in evaluating if a project would be mutually beneficial.

If you are interested in being considered and have one or more sites in mind that may be suitable for such a project, please fill out the enclosed checklist for preliminary site information enclosed and return to Mr Coby Skye of this office Mr Skye can also be contacted at (626) 458-5163, Monday through Thursday, 7 a.m to 5 30 p.m., or by e-mail at cskye@dpw.lacounty.gov For More information regarding the County's conversion technology efforts, please visit www.SoCalConversion.org.

ATTACHMENT 3

CITY OF VERNON RESOLUTION

RESOLUTION NO. 2010-143

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF VERNON APPROVING AND AUTHORIZING THE CITY'S SUBMISSION OF A LETTER OF INTEREST TO PARTICIPATE IN THE LOS ANGELES COUNTY CONVERSION TECHNOLOGY PROGRAM

WHEREAS, the City of Vernon (the "City") is a municipal corporation and a chartered city of the State of California organized and existing under its Charter and the Constitution of the State of California; and

WHEREAS, since 2004, Los Angeles County has been evaluating and pursuing the development of solid waste conversion technologies to reduce dependence on landfill disposal; and

WHEREAS, Los Angeles County, through its Department of Public Works and its Integrated Waste Management Task Force, has extended an invitation to the City to participate in efforts to develop solid waste conversion technology facilities in Los Angeles County (the "Program"); and

WHEREAS, Los Angeles County's invitation included a request that the City submit a non-binding preliminary site information checklist if the City was interested in locating a solid waste conversion technology facility in the City of Vernon; and

WHEREAS, by memorandum dated September 28, 2010, the Director of Health and Environmental Control has recommended the City's submission of a letter of interest to participate in the Program.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF VERNON AS FOLLOWS:

SECTION 1: The City Council of the City of Vernon hereby

finds and determines that the recitals contained hereinabove are true and correct.

SECTION 2: The City Council of the City of Vernon hereby approves and authorizes the City's submission to Los Angeles County of a non-binding letter indicating the City's interest in participating in the Program, including submission of a preliminary site information checklist (the "Letter of Interest").

SECTION 3: The City Council of the City of Vernon hereby authorizes the City Administrator, or his designee, to take whatever actions are deemed necessary or desirable for the purpose of implementing and carrying out the purposes of this Resolution and the actions herein approved or authorized, including without limitation, execution of the Letter of Interest.

SECTION 4: The City Clerk of the City of Vernon shall certify to the passage, approval and adoption of this resolution, and the City Clerk of the City of Vernon shall cause this resolution and the City Clerk's certification to be entered in the File of Resolutions of the Council of this City.

APPROVED AND ADOPTED this 4th day of October, 2010.

Name: Hilario Gonzales

Title: Mayor / ~~Mayor Pro-Tem~~

ATTEST:

Willard G. Yamaguchi, City Clerk

STATE OF CALIFORNIA)
) ss
COUNTY OF LOS ANGELES)

I, Willard G. Yamaguchi, City Clerk of the City of Vernon, do hereby certify that the foregoing Resolution, being Resolution No. 2010-143, was duly passed, approved and adopted by the City Council of the City of Vernon at a regular meeting of the City Council duly held on Monday, October 4, 2010, and thereafter was duly signed by the Mayor or Mayor Pro-Tem of the City of Vernon.

Executed this 5 day of October, 2010, at Vernon, California.

Willard G. Yamaguchi, City Clerk

(SEAL)

Figure 1

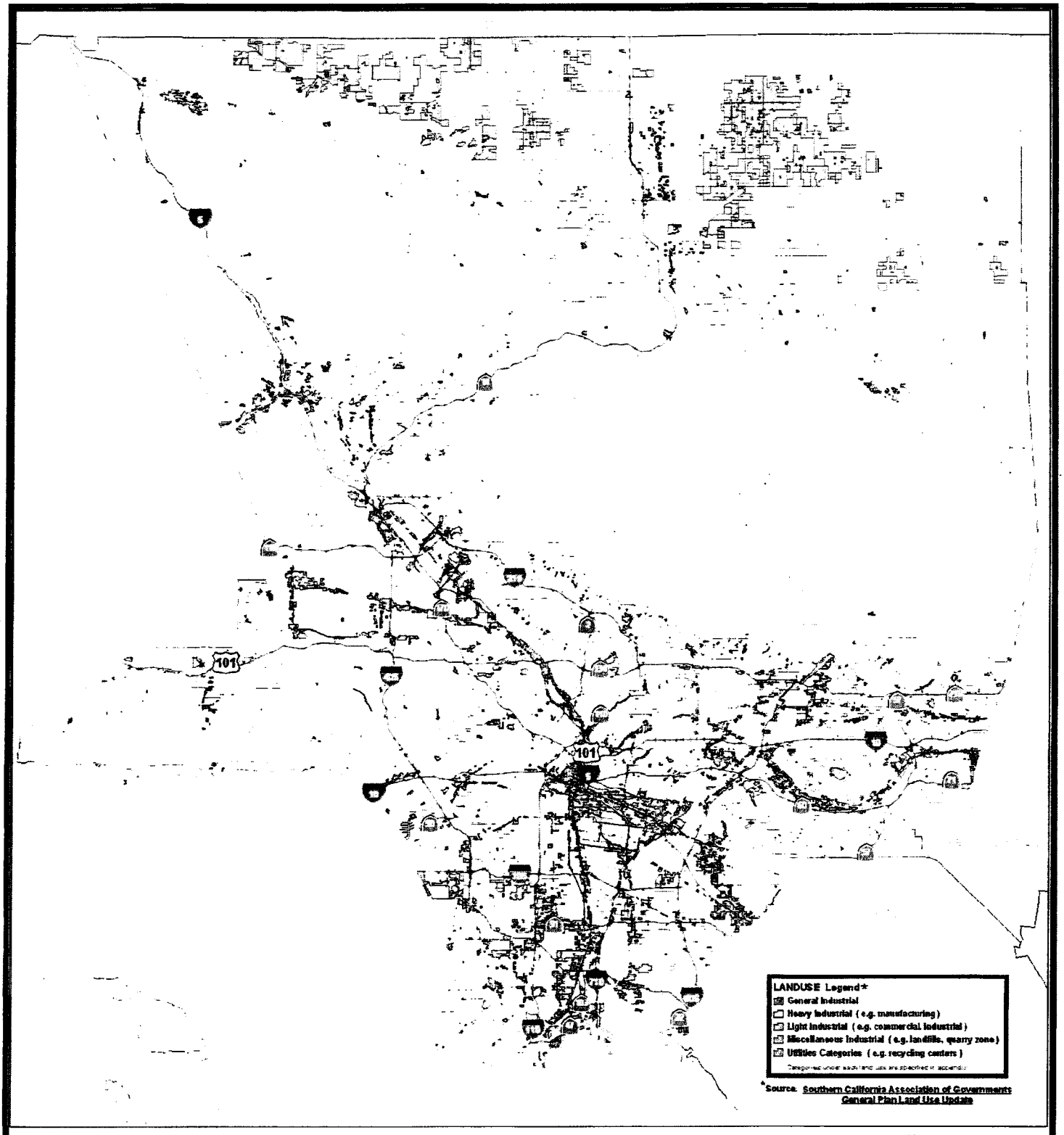

101
101
LANDUSE Legend*
General Industrial
Heavy Industrial (e.g. manufacturing)
Light Industrial (e.g. commercial, industrial)
Miscellaneous Industrial (e.g. landfills, quarry zone)
Utilities Categories (e.g. recycling centers)
*Source: Southern California Association of Governments General Plan Land Use Update
LEGEND
Freeways
City Boundaries
Adjacent Counties
N
Miles
0
5
10
PUBLIC WORKS
AREAS POTENTIALLY SUITABLE FOR SITING
ALTERNATIVE TECHNOLOGY FACILITIES
IN LOS ANGELES COUNTY
Figure 7-9
Data contained in this map is produced as whole or part from the Los Angeles County Department of Public Works' digital database
REF \\pwnas1\MPMGIS$\mpmgs\projects\epchscag_slingfacs\landuse_comboF_Fig7DS_8x11_revD.mxd
DATE 09/10/2009
Survey/Mapping & Property Management Division, Mapping & GIS Services Section

Figure 2

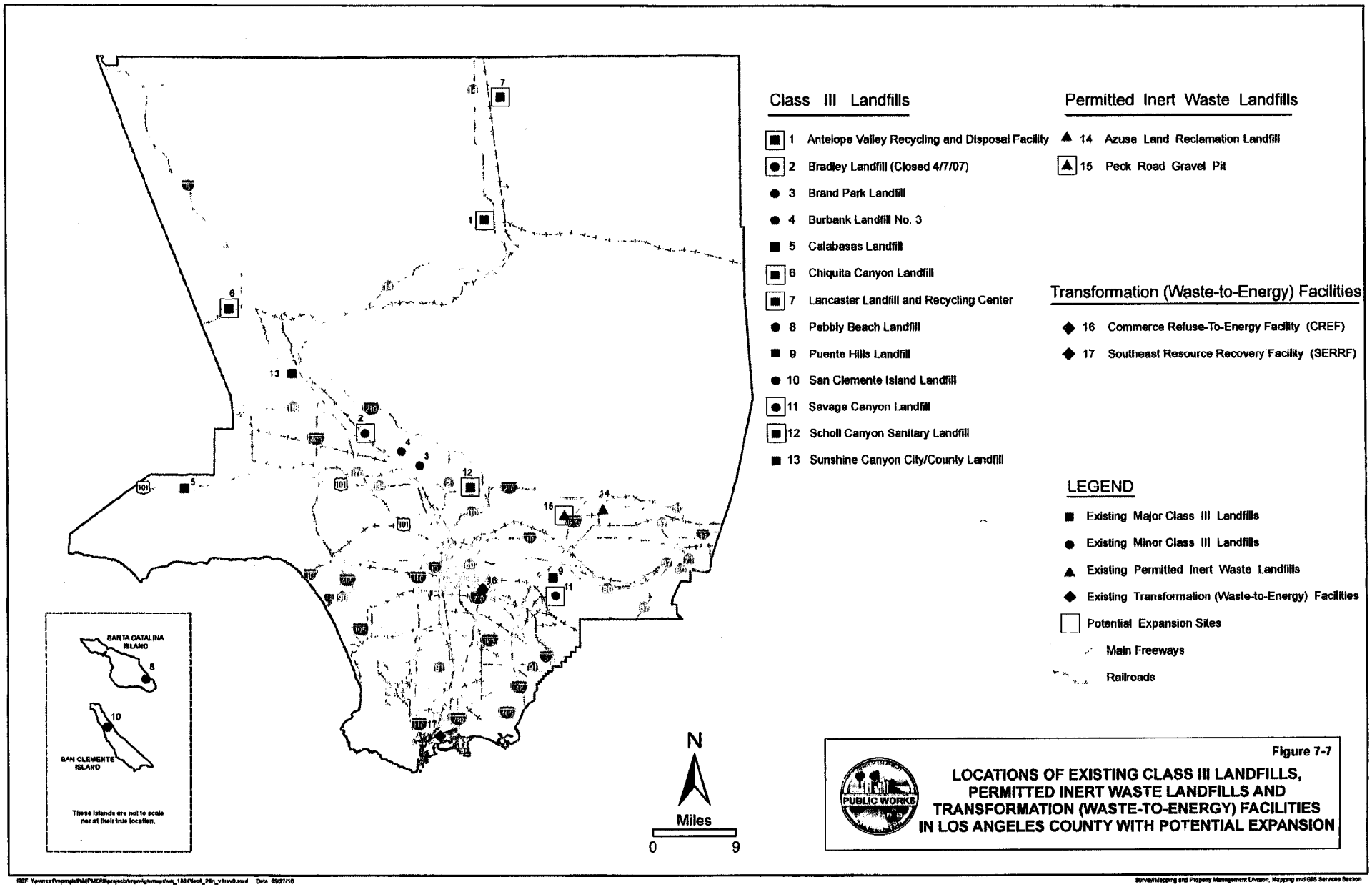
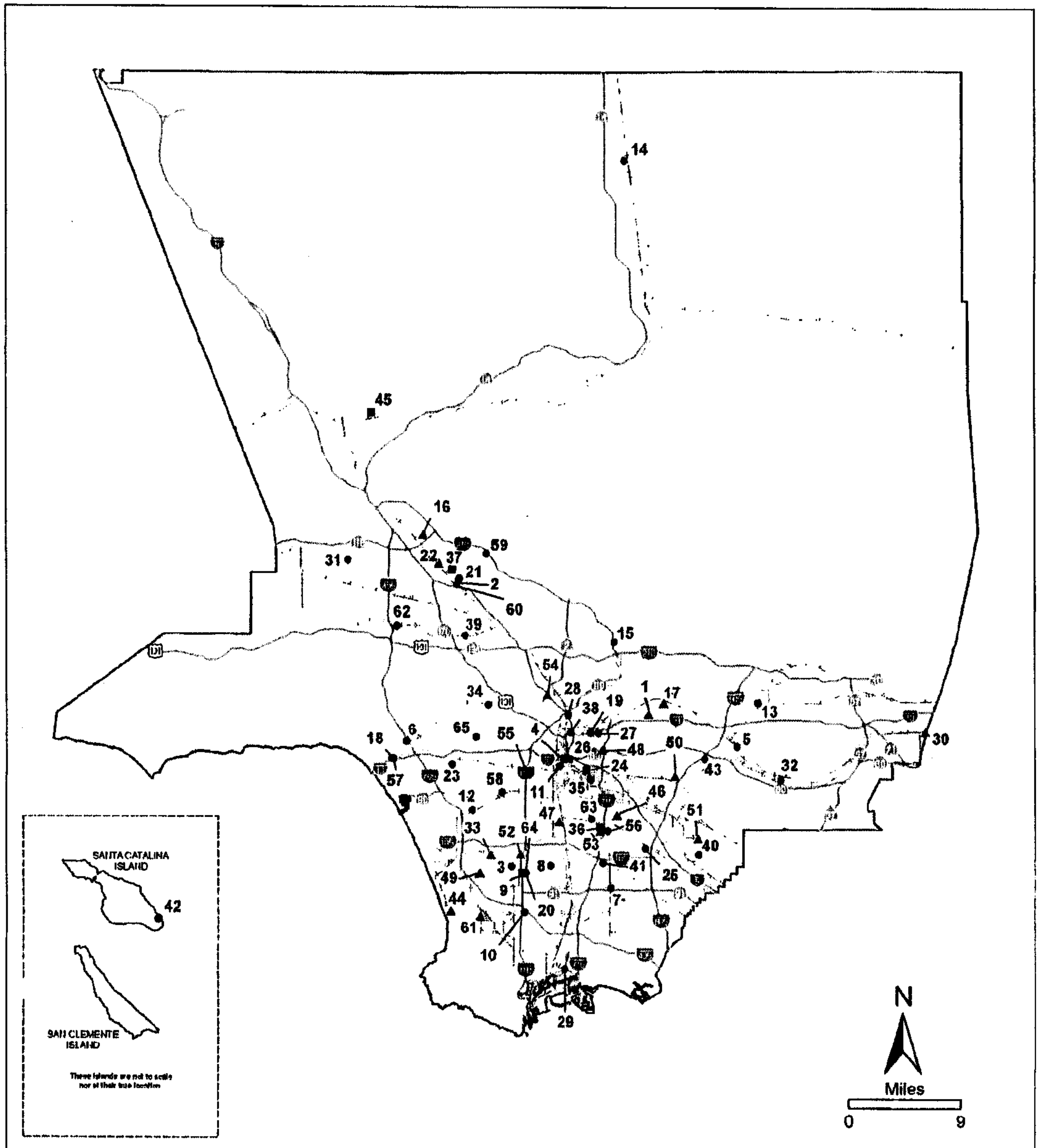

Class III Landfills
1 Antelope Valley Recycling and Disposal Facility
2 Bradley Landfill (Closed 4/7/07)
3 Brand Park Landfill
4 Burbank Landfill No. 3
5 Calabasas Landfill
6 Chiquita Canyon Landfill
7 Lancaster Landfill and Recycling Center
8 Pebbly Beach Landfill
9 Puente Hills Landfill
10 San Clemente Island Landfill
11 Savage Canyon Landfill
12 Scholl Canyon Sanitary Landfill
13 Sunshine Canyon City/County Landfill
Permitted Inert Waste Landfills
14 Azusa Land Reclamation Landfill
15 Peck Road Gravel Pit
Transformation (Waste-to-Energy) Facilities
16 Commerce Refuse-To-Energy Facility (CREF)
17 Southeast Resource Recovery Facility (SERRF)
LEGEND
Existing Major Class III Landfills
Existing Minor Class III Landfills
Existing Permitted Inert Waste Landfills
Existing Transformation (Waste-to-Energy) Facilities
Potential Expansion Sites
Main Freeways
Railroads
SANTA CATALINA ISLAND
SAN CLEMENTE ISLAND
These islands are not to scale nor at their true location.
N
Miles
0
9
Figure 7-7
PUBLIC WORKS
LOCATIONS OF EXISTING CLASS III LANDFILLS, PERMITTED INERT WASTE LANDFILLS AND TRANSFORMATION (WASTE-TO-ENERGY) FACILITIES IN LOS ANGELES COUNTY WITH POTENTIAL EXPANSION

Figure 3



NO.	FACILITY NAMES AND ADDRESSES
▲ 1	Alhambra Roll-Off Bin Transfer Station 900 South New Avenue, Alhambra, California 91801
● 2	American Waste Industries 11121 Pendleton Street, Sun Valley, California 91353
● 3	American Waste Transfer Station 1449 West Rosecrans Avenue. Gardena, California 90247
● 4	Angelus Western Paper Fibers, Inc. 2474 Porter Street, Los Angeles, California 90021
● 5	Athens Services * 14048 East Valley Boulevard, Industry, California 91746
● 6	Bel-Air Street Maintenance District Yard 11165 Missouri Avenue, Los Angeles, California 90025
● 7	Bel-Art Waste Transfer Station 2501 East 68th Street, Long Beach, California 90805
● 8	Browning Ferris Industries Waste Systems, Compton 2509 West Rosecrans Avenue, Compton, California 90220
■ 9	California Waste Services 621 West 152nd Street, Gardena, California 90247
● 10	Carson Transfer Station and Materials Recovery Facility * 321 West Francisco Street, Carson, California 90745
● 11	Central Los Angeles Recycling and Transfer Station * 2201 Washington Boulevard, Los Angeles, California 90034
● 12	City of Inglewood Transfer Station 222 West Beach Avenue, Inglewood, California 90302
● 13	City of Irwindale Limited Transfer Operation 4342 Alderson Avenue, Irwindale, California 91706
● 14	City of Lancaster Maintenance Yard, Medium Volume Transfer Station 46008 North 7th Street West, Lancaster, California 93534
▲ 15	City Yards 233 West Mountain Street, Pasadena, California 91103
▲ 16	City of San Fernando Corporate Yard 535 Glen Oaks Boulevard, San Fernando, California 91340
▲ 17	City of San Gabriel Disposal 927 East Grand Avenue, San Gabriel, California 91776
● 18	City of Santa Monica Transfer Station 2500 Michigan Avenue, Santa Monica, California 90404
● 19	City Terrace Recycling Transfer Station 1511-1525 Fishburn Avenue, City Terrace, California 90063
● 20	Coastal Materials Recovery Facility and Transfer Station 357 West Compton Boulevard, Gardena, California 90248
● 21	Community Recycling/Resource Recovery, Inc. 9147 De Garmo Avenue, Sun Valley, California 91352
▲ 22	Cordova Construction Services 12506 Montague Street, Pacoima, California 91331
● 23	Culver City Transfer and Recycling Station 9255 West Jefferson Boulevard, Culver City, California 90232
■ 24	Direct Disposal Construction & Demolition Recycling 3720 Noakes Street, Los Angeles, California 90023
● 25	Downey Area Recycling and Transfer Station (DART) * 9770 Washburn Road, Downey, California 90241
■ 26	Downtown Diversion 2424 East Olympic Boulevard, Los Angeles, California 90021
● 27	East Los Angeles Recycling and Transfer Station 1512 N. Bonnie Beach Place City Terrace, California 90063
● 28	East Street Maintenance District Yard 452 San Fernando Road, Los Angeles, California 90065
● 29	Falcon Refuse Center, Inc. 3031 East "I" Street, Wilmington, California 90744
▲ 30	First Street Transfer Station 1730 East First Street, Pomona, California 91769
● 31	Granada Hills Street Maintenance District Yard 10210 Etiwanda Avenue, Northridge, California 91325
● 32	Grand Central Recycling and Transfer Station * 999 Hatcher Avenue, City of Industry, California 917448
▲ 33	H & C Disposal Company 3249 W. El Segundo Boulevard, Hawthorne, California 90250
● 34	Hollywood Street Maintenance District Yard 6640 Romaine Street, Hollywood, California 90038
● 35	Innovative Waste Control * 4133 Bandini Boulevard, Vernon, California 90023
■ 36	Interior Removal Specialists, Incorporated, CDI 9309 Rayo Avenue, South Gate, California 90280
■ 37	Looney Bins/East Valley Diversion 11616 Sheldon Street, Sun Valley, California 91352
● 38	Mission Road Recycling and Transfer Station 840 South Mission Road, Los Angeles, California 90033
● 39	North Hollywood-Studio City Maintenance District Yard 10811 Chandler Boulevard, North Hollywood, California 91601
● 40	Norwalk Transfer Station 13760 East Imperial Highway, Santa Fe Springs, California 90670
● 41	Paramount Resource Recycling Facility 7230 Petterson Lane, Paramount, California 90723
● 42	Pebbly Beach (Avalon) Disposal Site 1 Dump Road, Avalon, California 90704
● 43	Puente Hills Materials Recovery Facility * 2800 Workman Mill Road, Whittier, California 90601
▲ 44	Redondo Beach Transfer Station 1513 Beryl Street, Redondo Beach, California 90277
■ 45	Rent-A-Bin 20745 Santa Clara Street, Santa Clarita, California 91351
▲ 46	Road Maintenance Division #4, Small Volume Transfer Station 11282 South Garfield Avenue, Downey, California 90201
▲ 47	Road Maintenance Division #141/241, Small Volume Transfer Station 2120 E. 90th Street, Los Angeles, California 90002
▲ 48	Road Maintenance Division #142, Small Volume Transfer Station 4304 Eugene Street, Los Angeles, California 90022
▲ 49	Road Maintenance Division #232, Small Volume Transfer Station 4055 West Marine Avenue, Lawndale, California 90260
▲ 50	Road Maintenance Division #446, Small Volume Transfer Station 9251 East Beverly Boulevard, Pico Rivera, California 90660
▲ 51	Road Maintenance Division #446A, Small Volume Transfer Station 13671 Telegraph Road, Whittier, California 90604
▲ 52	Rob's Roll-Off and Recycling 416 West 130th Street, Los Angeles, California 90061
▲ 53	Salt Lake Transfer Station 9589 Salt Lake Avenue, South Gate, California 90280
▲ 54	Silverlake Maintenance Station 2187 Riverside Drive, Los Angeles, California 90039
● 55	Southeast Street Maintenance District Yard 4206 South Main Street, Los Angeles, California 90037
● 56	South Gate Transfer Station * 9530 South Garfield Avenue, South Gate, California 90280
● 57	Southern California Disposal Recycling and Transfer Station 1908 Frank Street, Santa Monica, California 90404
● 58	Southwest Street Maintenance District Yard 5860 South Wilton Place, Los Angeles, California 90047
● 59	Sunland Street Maintenance District Yard 9401 Wentworth Street, Sunland, California 91040
● 60	Sun Valley Paper Stock Materials Recovery Facility and Transfer Station 8701 N. San Fernando Road, Sun Valley, California 91352
▲ 61	Torrance City Services Facility 20500 Madrona Avenue, Torrance, California 90503
● 62	Van Nuys Street Maintenance District Yard 15145 Oxnard Street, Van Nuys, California 91411
● 63	Waste Management South Gate Transfer Station 4489 Ardine Street, South Gate, California 90280
● 64	Waste Resources Recovery 357 West Compton Boulevard, Gardena, California 90248
● 65	Wilshire Street Maintenance District Yard 1274 South Cochran Avenue, Los Angeles, California 90019

Note:

* These sites were identified in Los Angeles County Countywide Siting Element, dated June 1997, as sites with potential rail-loading capability.

Legend

- ● Materials Recovery Facilities
- ▲ Transfer Stations
- ■ Construction, Demolition & Inert (CDI) Debris Processing Facilities
- Railroads
- Major Freeways

PUBLIC WORKS

Figure 9-5

LOCATIONS OF MATERIALS RECOVERY FACILITIES, TRANSFER STATIONS, AND CDI DEBRIS PROCESSING FACILITIES IN LOS ANGELES COUNTY

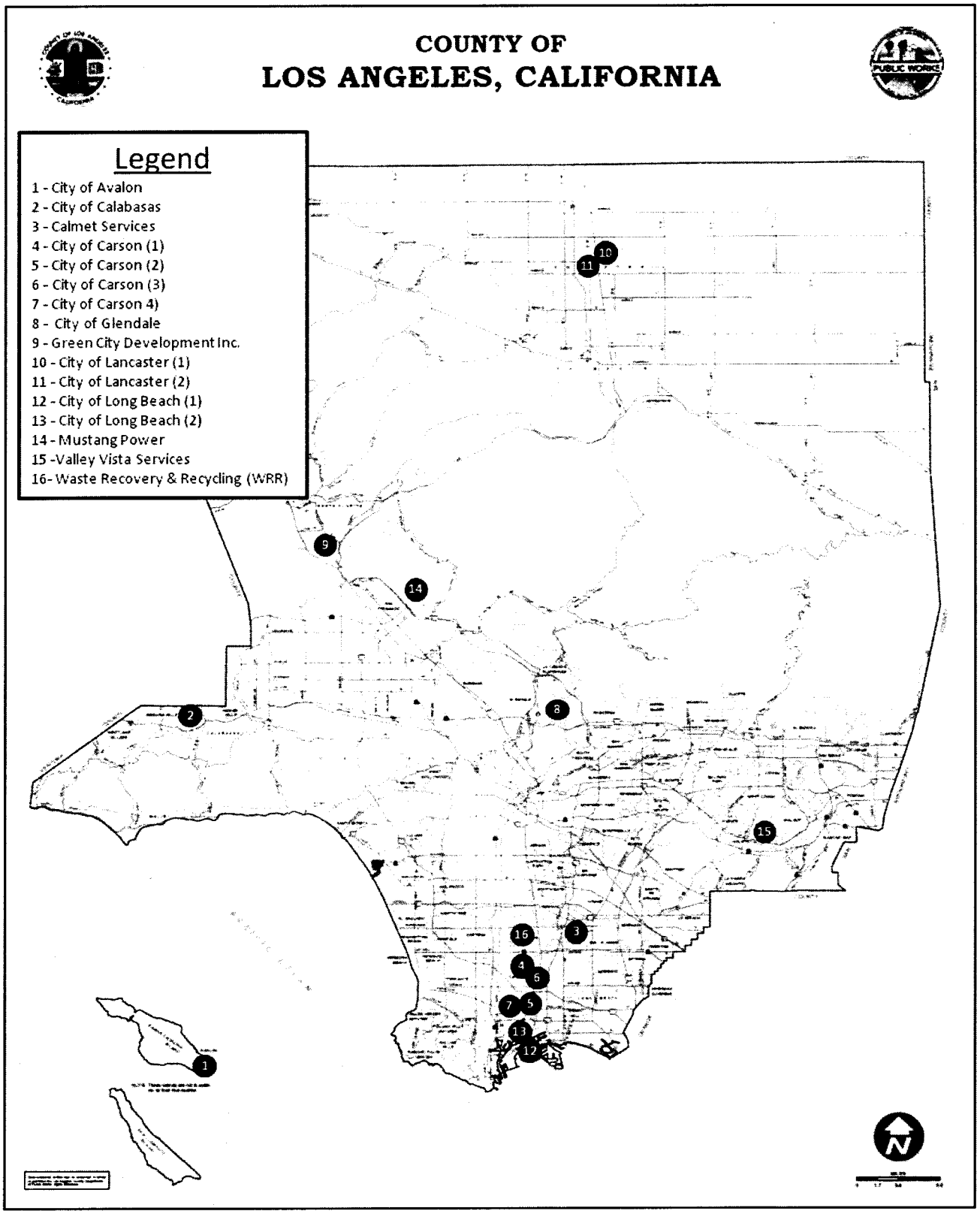
These islands are not to scale nor at their true location

REF \\pwnas1\mmrpas$\MPMGIS\projects\mpmlg\smapwk_2648\mxd_ls_Rev9.mxd Date 11/18/09

Survey/Mapping and Property Management Division, Mapping and GIS Services Section

Figure 4

Location Map of Potential Sites



COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

GAIL FARBER, Director

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IN REPLY PLEASE
REFER TO FILE: EP-4
A3454-1

April 21, 2011

TO: Each Supervisor

FROM: Gail Farber
Director of Public Works

BOARD MOTION OF APRIL 20, 2010, ITEM NO. 44
CONVERSION TECHNOLOGIES IN LOS ANGELES COUNTY
SIX MONTH STATUS UPDATE: OCTOBER 2010 THROUGH APRIL 2011 UPDATE

On April 20, 2010, your Board unanimously approved three Memorandums of Understanding for three conversion technology demonstration projects and awarded a contract for consultant services for Phase III and Phase IV of the Southern California Conversion Technology Demonstration Project for the purpose of developing solid waste alternatives to landfills within Los Angeles.

At that time, your Board also instructed the Director of Public Works, in coordination with appropriate stakeholders, to assess the feasibility of developing a conversion technology facility at one or more County landfills; to identify other potentially suitable sites within Los Angeles County; and to report back to the Board within six months. In October 2010, Pubic Works submitted a preliminary siting assessment in response to this request, and committed to providing your Board with a status report on our efforts every six months.

The attached Status Report summarizes the efforts Public Works has undertaken to advance conversion technology development in the County of Los Angeles during the period of October 2010 through April 2011. Highlights from the last six months include:

- Assisting CR&R, Inc., one of the three approved demonstration project developers, in securing a $4.5 million grant from the California Energy Commission.
- Advancing discussions with several site owners and operators in the County of Los Angeles who are interested in developing a facility.

- Identifying Federal and State funding opportunities for Phase III and Phase IV projects.
- Developing resources for local stakeholders, such as a listing of technology vendors and potential funding entities.

Public Works will continue to work with interested stakeholders to identify potential project locations within the County, evaluate the viability of new conversion technologies, and provide technical assistance to project developers. Our next status report will be submitted to your Board by October 20, 2011.

TM/CS:my
P:\sec\A3454

Attach.

cc: Chief Executive Office
County Counsel
Los Angeles County Integrated Waste Management Task Force
Department of Public Health
Department of Regional Planning
Regional Planning Commission
Sanitation Districts of Los Angeles County

BOARD MOTION OF APRIL 20, 2010, ITEM NO. 44
CONVERSION TECHNOLOGIES IN LOS ANGELES COUNTY
SIX MONTH STATUS UPDATE: OCTOBER 2010 THROUGH APRIL 2011 UPDATE

1.0 INTRODUCTION

On April 20, 2010, the Los Angeles County Board of Supervisors (Board) unanimously approved three Memorandums of Understanding (MOU) for three conversion technology (CT) demonstration projects and awarded a contract for consultant services for Phase III and Phase IV of the Southern California Conversion Technology Demonstration Project for the purpose of developing solid waste alternatives to landfills within the County of Los Angeles. At that time, your Board also instructed the Director of Public Works, in coordination with appropriate stakeholders, to assess the feasibility of developing a conversion technology facility at one or more County landfills, and to identify other potentially suitable sites within the County of Los Angeles, reporting back to your Board in six months with Public Works' findings.

In October 2010, the Department of Public Works (Public Works) submitted a Preliminary Siting Assessment to your Board. That report identified 11 stakeholders, representing cities, solid waste companies, industrial real estate developers, and 16 sites submitted by the stakeholders for consideration. Based on the general assessment provided in the report, Public Works determined that all of the sites merited further consideration. Since then, Public Works has continued to work with interested stakeholders to identify and evaluate potential project locations within the County, evaluate technologies, research funding and financing opportunities, and provide technical and planning assistance to potential project developers.

To keep the Board regularly informed on these developments, Public Works committed to providing a status report every six months. This status report provides a summary of key accomplishments over the past six months in facilitating the Phase III demonstration projects and advancing the development of conversion technology projects within the County.

2.0 PHASE III DEMONSTRATION PROJECTS

In April 2010, the Board unanimously approved MOUs for three conversion technology demonstration projects: an anaerobic digestion facility (CR&R, Inc.), a gasification facility (Rainbow Disposal Company, Inc.), and a pyrolysis facility (International Environmental Solutions, Inc.). The intent of these demonstration projects is to validate the technical, environmental, and economic benefits of CTs in a local setting, and to provide an impetus and clear permitting pathway for future projects. The demonstration projects will be "flagship facilities", reflecting Leadership in Energy and Environmental Design (LEED) design considerations for eco-friendly, "green" construction. In accordance with the MOUs, Public Works is providing technical and financial advisory assistance and other types of support to the project developers. A summary and status of these Board-approved demonstration projects is as follows:

- **CR&R, Inc. -** CR&R, Inc., a local solid waste management company, is developing a 150 ton per day anaerobic digestion project at its material recovery facility (MRF) and transfer station (TS) in Perris, California. Public Works has been actively involved with CR&R, Inc., in pursuing funding and financing opportunities, and as a result, CR&R, Inc., was awarded a grant of more than $4.5 million from the California Energy Commission (CEC) in January 2011. CR&R, Inc., is seeking additional grant and tax-credit support, as well as loans to complete the financing of the project, however, the CEC grant is the key to successful financing. This project will process MRF residuals into biogas, which will be further processed into pipeline-quality natural gas or compressed natural gas (CNG). This CNG can also be used as a fuel in CR&R, Inc.'s collection truck fleet. CR&R, Inc., is exploring additional options to use some of the biogas in an engine or a fuel cell to generate electric power for on-site use by CR&R, Inc., and/or for sale. In addition, CR&R, Inc., has defined and initiated permitting activities and is in discussions with third parties regarding sale of energy and compost products. Construction is expected to commence in 2012 and be completed in 2014.

  Although the project will be initially developed to process 150 tons per day of MRF residuals, CR&R, Inc., envisions future expansion. Continued success will enable this project to be the first large-size demonstration facility operating in Southern California. Over the next six months, Public Works will complete its own economic analysis to assess the economic advantages of expanding the facility. Public Works will also continue to support CR&R, Inc., as it seeks and evaluates additional funding opportunities. Similarly, within the framework of the MOU, Public Works will monitor and support CR&R, Inc.'s other development activities, including in the near term, permitting and public outreach activities.

- **Rainbow Disposal Company, Inc.** - As currently planned, the facility will be sited at Rainbow's Huntington Beach MRF/TS. Under the terms of Rainbow's MOU with the County, the facility will be designed with an initial capacity of 360 tons per day, with an expansion capability of up to 1,000 tons per day. It will process MRF residuals as well as post-recycled municipal solid waste that would otherwise be landfilled. The energy product of the facility will be electric power. Rainbow has been continuing to address technical and economic aspects of its CT project. A particular hurdle for the project is a significant reduction in the anticipated volume of waste at the Huntington Beach MRF/TS since the MOU was signed. Public Works and Rainbow are continuing to collaborate and communicate on this demonstration project. The next meeting is planned for May 2011 to review and assess the status of project development activities.

- **International Environmental Solutions, Inc. (IES)** - The IES facility will use its proprietary low-temperature advanced pyrolysis technology to convert solid waste feedstock into a synthesis gas that will be used to generate electric power. As envisioned under IES's MOU with the County, the facility will have an initial capacity of 184 tons per day, which could be expanded in the future, and will be

located at the Robert A. Nelson TS and MRF (RAN) in Riverside County. The MOU anticipated the IES demonstration project to be phased-in with an initial testing period processing 35 tons per day of MRF residuals and/or post-recycled waste from RAN at IES's facility in Menifee (formerly, Romoland). Following successful completion of the testing phase, IES would develop and install the project at RAN. The testing phase has not yet been conducted. Since approval of the MOU, the system in Menifee was contracted to a private company on a lease/purchase arrangement and relocated to Mecca, California for commercial application processing tires. As a result of this change, Public Works and IES are jointly exploring other potential options to conduct the test phase of this demonstration project.

3.0 PHASE III FINANCING AND FUNDING SUPPORT ACTIVITIES

For purpose of supporting development activities for CT projects, Public Works has placed a high priority on researching and pursuing financing and funding opportunities such as grants, low interest loans, State and Federal appropriations, and other incentives to close the gap between needed CT tipping fees and market rate waste disposal fees.

Public Works' consulting team includes specialty advisory groups based in Sacramento and Washington, D.C., to pursue State and Federal opportunities. A key focus of the team has been funding opportunities under the CEC, and in particular, the Alternative and Renewable Fuel and Vehicle Technology Program (AB 118), which was the funding mechanism for the CR&R, Inc., project. On a Federal level, the team has been tracking and pursuing various potential opportunities, including programs at four Federal Departments - Transportation, Commerce, Agriculture, and Energy. The project team has focused on how the projects fit into the priorities and potential funding opportunities expected out of the Departments. The team will continue to track Federal activities and will follow-up with the agencies once Federal budgets are adopted, programmatic funding levels have been determined, and application schedules are known. At the State level, the team recently completed a comprehensive cataloging of pertinent State funding opportunities from a number of State agencies (including CEC, CalRecycle, California Pollution Control Financing Authority, State Treasurer's Office, Air Resources Board, Infrastructure State Revolving Fund program (ISRF), and the Public Utilities Commission). Many programs have not been finalized and may be subject to change based on budgetary considerations.

In addition to pursuing State and Federal funding and financing opportunities to support project development activities, Public Works is also focusing its efforts on researching and, as applicable, pursuing grant opportunities for the County's planning activities. At this time, the greatest potential appears to be through the Environmental Protection Agency and the CEC's Technical Assistance and Analysis program. These opportunities are being further investigated for applicability to determine schedule requirements.

4.0 PHASE IV COMMERCIAL PROJECT SITE IDENTIFICATION AND ASSESSMENT

Phase IV of the County's Conversion Technology Project focuses on facilitating the development of commercial-scale CT facilities in the County of Los Angeles for the purpose of providing alternatives to landfill disposal of post-recycled municipal solid waste. As previously described, an important component of Phase IV activities includes identifying and evaluating potential sites. Phase IV also includes working with stakeholders, including cities, solid waste facility owners and operators, and CT companies, to encourage and facilitate the development of mutually beneficial projects within the County.

Public Works has continued to meet with the Chief Executive Office, Sanitation Districts of Los Angeles County (CSD), interested cities, communities, companies in the waste management sector, solid waste facility owners and operators, and industrial real estate developers to further identify and evaluate potential sites within the County. Due to the high level of interest and interaction with the individual stakeholders and based on the extent of available information pertaining to the sites, Public Works has recently focused its efforts on the following four potential sites identified in the Preliminary Siting Assessment: Calabasas Landfill; Scholl Canyon Landfill; Grand Central Recycling and TS in the City of Industry; and potential sites in the City of Carson, including the Carson Corporate Yard. An update of activities regarding these priority stakeholders and sites is provided below:

- **Calabasas Landfill** - The landfill is located in Unincorporated Los Angeles County near the City of Calabasas and is owned by the County and operated by CSD. The City of Calabasas adopted a resolution supporting the development of a CT facility at the landfill. It has limited acreage available for CT development, and site development may require significant earthwork, which may increase project costs. The landfill has a landfill gas recovery and energy generation system which could be of benefit to a CT project producing biogas. Public Works and members of the Los Angeles County Solid Waste Task Force were recently given a tour of the landfill gas-to-energy facility. Public Works and its consulting team are completing an economic model and options analysis for various CT options at the Calabasas Landfill.

- **Scholl Canyon Landfill** - The landfill is located in the City of Glendale and is located on property owned jointly by the City (90 percent) and the County (10 percent). It is operated by CSD. The City of Glendale adopted a resolution supporting the development of a CT facility at the landfill. Similar to the Calabasas Landfill, there is limited acreage available for CT development, and site development may require significant earthwork, which may increase project costs. The City of Glendale has hired a consultant to assist them with site and technology assessment, and is actively pursuing development of a project at the landfill or another viable site in the City. Public Works has met with the City and will continue to coordinate with Glendale as needed.

- **Grand Central Recycling and TS** - The existing Grand Central facility is located in the City of Industry and is owned and operated by Valley Vista Services. The company is working with Onsite Power, the licensee of the UC Davis Anaerobic Digestion process, to build a CT project on approximately four acres available at the Grand Central facility. This project could take advantage of existing infrastructure, including recycling and TS processing equipment, administrative offices, scales, tipping areas, and residue load out. The project developer is in discussions with regulators regarding permitting of the facility. As currently envisioned, this project would initially receive source-separated food waste and green waste. Public Works is closely following this project, due to the advanced level of activity by the stakeholders. Also, this project affords the County the opportunity to consider the viability of the use of CT technologies for source separated organic waste such as food waste and green waste. Such uses are receiving increased attention of public jurisdictions and private stakeholders, pending the need for alternative methods of green waste management following closure of the Puente Hills Landfill.

- **City of Carson Public Works Yard or other potential sites within Carson** - The City of Carson Public Works Yard is a 14-acre site owned by the City and is currently used to house public works operations. Due to the existing operations, several structures for offices and vehicle maintenance are already present on site. The site is located in a heavy industrial area and has rail access. The availability of this site for a CT project is tied to relocation of the City's public works yard to another site, or consolidation of activities at the site to free up space. Public Works and its consulting team have conducted several follow-up meetings with City staff to understand the City's goals and needs and to identify preferred options for a CT project at the public works yard as well as other potential sites within the City's boundaries. Over the next few months, Public Works will assist City staff in evaluating the options and providing information to City administration.

The other sites previously identified in the Preliminary Siting Assessment have remained under consideration. In addition, ongoing outreach efforts by Public Works and its consulting team have resulted in the identification of several new candidate sites. These sites, which are briefly summarized below, will continue to be considered at a pace commensurate with the interest and activity of the respective stakeholders.

Previously Identified Stakeholders and Sites

- **Pebbly Beach Landfill** - The Pebbly Beach Landfill is located in Unincorporated Los Angeles County and owned by the City of Avalon, who has expressed interest in developing a CT facility. Adjacent land use includes vacant, rugged terrain and the City's wastewater treatment plant.

- **Calmet Services MRF/TS** - The MRF is located in the City of Paramount and owned and operated by Calmet Services, who purchased a 7-acre site across

the street from their MRF/TS. A future CT project could make use of the infrastructure at Calmet's adjacent existing MRF/TS.

- **Green City Development, Inc., Site** - Green City Development, Inc., owns a former oil drilling site that occupies a total of 115 acres in the City of Santa Clarita. This is a brownfield site.

- **Lancaster Area -** The City of Lancaster has expressed interest in developing a CT facility within the City or nearby in Unincorporated County areas in partnership with the County. A number of sites are being evaluated for development.

- **City of Long Beach** - The City of Long Beach has expressed interest in developing a CT facility, and has identified two potential sites: approximately 80 acres within the Port of Los Angeles at Pier A West, of which a portion could possibly be used for a non-port use such as a CT project; and an area on Terminal Island near the current SERRF plant, following the re-alignment of the Terminal Island Freeway. Discussions with City staff are ongoing.

- **Sylmar Site** - Mustang Power, a land development company, is proposing a CT project for a 36-acre site that it owns in the Unincorporated County area of Sylmar. The site is currently being used for storage and as a trailer park.

- **Waste Recovery and Recycling MRF/TS -** Waste Recovery and Recycling is proposing to locate a CT project on property adjacent to their MRF/TS in the City of Gardena. Waste Recovery and Recycling would still need to secure the adjacent land prior to development.

Newly Identified Stakeholders and Sites

Since Public Works submitted the Preliminary Siting Assessment to the Board in October 2010, seven additional sites have been submitted to Public Works as potential host sites for CT facilities in the following locations:

- **Green City Development, Inc., Lopez Canyon Site -** Green City Development, Inc., is an industrial land developer who owns a 40-acre parcel of land in Lopez Canyon and has expressed interest in developing a CT facility at the site. The land is industrially zoned and is accessible by truck.

- **Pacific Coast Waste & Recycling (four sites):**

    - Representatives of the company own a 12-acre parcel located in the unincorporated County of Los Angeles in close proximity to the 605 Freeway. The site is zoned industrial, fully serviced with utilities, and has truck access.

- In the City of Inglewood, Pacific Coast Waste & Recycling has identified a potential site suitable for CT development. The site is a 6-acre parcel that is zoned industrial, fully serviced with utilities, is surrounded by other industrial businesses, and has truck access.
- In coordination with the City of Compton, Pacific Coast Waste & Recycling has recommended development of conversion technology facility at one of two sites (a 10-acre and a 7-acre parcel) within the City. Both sites are industrially zone and serviced by local utilities.

- **New Generation Technology Antelope Valley Site -** Mr. Qarmout is the owner of a 320-acre parcel in the unincorporated area of the Antelope Valley. He is interested in developing a CT facility utilizing the New Generation Technology process on his property.

- **Southland Disposal City Terrace MRF -** Southland Disposal, a local solid waste hauling company, has expressed interest in developing a CT project at their MRF in City Terrace. The current parcel is only 1.6 acres, but additional adjacent property may be purchased in the future.

As with the sites discussed in the Preliminary Siting Assessment, Public Works will evaluate the viability of each of these sites and update the Board as warranted. It should be noted that prior to development of a CT facility at any of the sites identified herein, the site must undergo rigorous technical and environmental assessments as well as comply with the requirements of all applicable Federal, State, and local permitting agencies.

5.0 PHASE IV TECHNICAL AND PROJECT DEVELOPMENT ASSISTANCE

Phase IV of the County's Conversion Technology Project focuses on facilitating the development of commercial-scale CT facilities in the County of Los Angeles for the purpose of providing alternatives to landfill disposal of post-recycled municipal solid waste. Public Works has been collaborating with priority stakeholders to help assess waste management needs and identify and evaluate options for viable CT projects. To support this effort, a comprehensive economic model has been developed that can be tailored for various project sizes and technologies.

Public Works is in the process of developing a comprehensive summary of conversion technology project developers, as well as companies active in California that provide financial services to public and private project developers related to financing CT projects. Technical and financial information is being gathered through two separate Requests for Expressions of Interest (RFEI); based upon responses to the RFEIs, a report and database of responding firms will be published. The information will provide a sound database for stakeholders and allow them to evaluate and implement projects on an accelerated schedule.

6.0 NEXT STEPS

Over the next six months, Public Works will continue to conduct Phase III and Phase IV activities on a parallel track, including the following key activities:

- Support CR&R, Inc., as it progresses through its financing, permitting, design, and construction activities for its Phase III anaerobic digestion demonstration project, providing technical and other assistance.

- Continue to work with Rainbow and IES to collaboratively address issues that have delayed the development of these Phase III demonstration projects.

- Continue to track State and Federal funding opportunities applicable to Phase III and Phase IV projects, following up with agencies, prioritizing key opportunities and pursuing appropriate opportunities.

- Complete the economic model and options analysis for development of a CT project at the Calabasas Landfill and review findings with the Sanitation District.

- Continue to coordinate with the City of Glendale as it conducts its independent work to develop a CT facility and to identify site-specific viable technologies.

- Monitor the development of Valley Vista Services' proposed CT facility at Grand Central Recycling, providing support as is mutually beneficial.

- Complete an options analysis for a CT facility for the City of Carson and assist City staff in providing the information to City administration.

- As mutually beneficial and in correlation with individual stakeholder project development activities and schedules, conduct more detailed site evaluations to support and facilitate project development activities.

- Continue to work with current and newly-identified stakeholders to determine their goals and objectives and to facilitate the development of suitable projects.

- Continue efforts to develop and provide information useful to stakeholders, including completion of an interactive economic model and the development of informational databases of CT technologies, companies, and financial service providers to assist stakeholders in evaluating and implementing projects.

Public Works will report back to your Board in six months regarding the status of these project activities.

P:\sec\A3454 Attachment

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

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October 20, 2011

IN REPLY PLEASE
REFER TO FILE: EP-4
A3454-2

TO: Each Supervisor

FROM: Gail Farber
Director of Public Works

BOARD MOTION OF APRIL 20, 2010, ITEM NO. 44
CONVERSION TECHNOLOGIES IN LOS ANGELES COUNTY
SIX MONTH STATUS UPDATE: APRIL 2011 THROUGH OCTOBER 2011 UPDATE

On April 20, 2010, your Board unanimously approved three Memorandums of Understanding for three conversion technology demonstration projects and awarded a contract for consultant services for Phase III and Phase IV of the Southern California Conversion Technology Demonstration Project for the purpose of developing solid waste alternatives to landfills within the County of Los Angeles.

At that time, your Board also instructed the Director of Public Works, in coordination with appropriate stakeholders, to assess the feasibility of developing a conversion technology facility at one or more County landfills; to identify other potentially suitable sites within Los Angeles County; and to report back to the Board within six months. In October 2010, Pubic Works submitted a preliminary siting assessment in response to this request, and committed to providing your Board with a status report on our efforts every six months.

The attached Status Report summarizes the efforts Public Works has undertaken to advance conversion technology development during the period of April 2011 through October 2011. Highlights from the last six months include:

- Significant progress in one of the three approved demonstration projects located in Perris, California - This project is now well into the permitting process. Construction of the 150 ton per day facility in Perris is anticipated to start early next year, with operation beginning by 2013. This will be the first conversion technology facility using anaerobic digestion for conversion of municipal solid waste in California.
- Continued Site Evaluations - In addition to the 23 sites highlighted in our previous update, we identified an additional site in the County of Los Angeles.

- Technology Evaluation - Our request for expressions of interest from conversion technology companies was very successful. We received 35 responses submitted from a variety of technology developers from around the world.
- Economic Modeling - We have developed several detailed economic models that will allow us to evaluate the economic viability of several potential projects utilizing different technologies at different scales. This will accelerate technology selection and the development of viable projects in the County.
- Increasing awareness and acceptance of Conversion Technologies - Our outreach and education efforts to key stakeholders, including Governor Brown's Administration, CalRecycle, the California Energy Commission, and various environmental groups, has been well received.

Public Works will continue to work with interested stakeholders to identify potential project locations within the County, evaluate the viability of new conversion technologies, and provide technical assistance to project developers. Our next status report will be submitted to your Board by April 20, 2012.

TM/CS:td
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Attach.

cc: Chief Executive Office
County Counsel
Los Angeles County Integrated Waste Management Task Force
Department of Public Health
Department of Regional Planning
Regional Planning Commission
Sanitation Districts of Los Angeles County

BOARD MOTION OF APRIL 20, 2010, ITEM 44
CONVERSION TECHNOLOGIES IN LOS ANGELES COUNTY
SIX MONTH STATUS UPDATE: APRIL 2011 THROUGH OCTOBER 2011 UPDATE

1 Introduction

On April 20, 2010, the Los Angeles County Board of Supervisors (Board) unanimously approved three Memorandums of Understanding (MOU) for three conversion technology demonstration projects and awarded a contract for consultant services for Phase III and Phase IV of the Southern California Conversion Technology Demonstration Project for the purpose of developing solid waste alternatives to landfills within the County of Los Angeles. At that time, your Board also instructed the Director of Public Works, in coordination with appropriate stakeholders, to assess the feasibility of developing a conversion technology facility at one or more County landfills, and to identify other potentially suitable sites within the County of Los Angeles, reporting back to your Board in six months with Public Works' findings.

Since that time, to keep the Board regularly informed on these developments, Public Works committed to providing a status report every six months. This status report provides a summary of key accomplishments during the period of April 20, 2011, through October 20, 2011, in facilitating the Phase III demonstration projects and advancing the development of conversion technology projects within the County through Phase IV.

2 Phase III Demonstration Projects

The purpose of the County's involvement in three Phase III projects is to obtain operating and emissions data that can be used for future educational purposes and to help create a permitting pathway for future commercial development in Los Angeles County. Each project represents a different solid waste conversion technology, including thermal gasification and anaerobic digestion systems. These facilities will be privately financed, owned, and operated.

2.1 CR&R, Inc.

CR&R, Inc., a local solid waste management company, is developing a 150 ton per day anaerobic digestion project at its material recovery facility (MRF) and transfer station (TS) in Perris, CA. This project is now well into the permitting process. The City of Perris issued the CEQA document for comment at the end of September. A public hearing before the City of Perris Planning Commission is scheduled for November 16, 2011, for certification of a mitigated negative declaration and for a proposed major modification to the existing conditional use permit. This is a landmark event, as it is expected to be the very first municipal solid waste (MSW) anaerobic digestion conversion technology project developed in California. On a parallel track, CR&R, Inc., is working with the Local Enforcement Agency for a solid waste facility permit modification and with the South Coast Air Quality Management District. CR&R, Inc., anticipates all entitlements will be obtained by November 2011. The facility is expected to be in construction in 2012 and in operation in 2013.

Since the April 2011 status update to your Board, CR&R, Inc., has informed the County of their decision to pursue the project with a different anaerobic digestion technology vendor than the one that was originally specified in the MOU with the County.

This decision does not change the scope or schedule of CR&R's, Inc., proposed project. Public Works is currently conducting an analysis of the proposed technology to determine if it meets the minimum criteria established during the Phase II technology evaluation. If the technology meets the criteria, Public Works will return to your Board for approval of a revised MOU, so that the County can continue in a facilitation role for this project.

2.2 Rainbow Disposal Company, Inc

As proposed in the MOU, Rainbow Disposal will build a 360 ton per day gasification facility at their MRF/TS in Huntington Beach. In order to enhance the financial viability of this project, Rainbow is currently considering additional technology options. If it is determined that another technology, other than the one listed in the MOU, would make this project more economically feasible, Public Works will take the appropriate steps to analyze the technology and submit a MOU revision request to your Board.

2.3 International Environmental Solutions (IES)

As outlined in IES's MOU with the County, the proposed pyrolysis facility would be designed with an initial capacity of 184 tons per day of post-recycled MSW, which could be expanded in the future, and would be located at the Robert A. Nelson MRF and TS (RAN) in Riverside County. Prior to building this facility, IES planned to conduct an initial testing period with their pyrolysis system at their company location in Menifee, CA. This testing phase has not been completed because the system was relocated and leased to a private developer in Mecca, California shortly after IES entered into the MOU.

On June 28, 2011, Public Works prepared a summary of options for conducting a Testing Phase to accomplish the objectives envisioned in IES' offer and MOU. Further consideration of these options would require input from Burrtec and Riverside County, including cooperative development of an implementation plan that addresses logistical aspects and scheduling. Public Works has had preliminary discussions with Riverside County and is awaiting final comment from Burrtec and Riverside County. Preliminary indications, however, are that the logistics of a project at RAN may no longer be viable. Public Works is working with IES to identify other interested sites in the County of Los Angeles for this project. Discussions are ongoing.

3 Phase IV Commercial Projects

3.1 Technology Evaluation

On June 22, 2011, Public Works released two Requests for Expressions of Interest (RFEI) to technology vendors and potential project financial partners. The RFEIs were widely distributed and responded to favorably. Companies that meet the County's list of

minimum criteria will be included in a County database that will be used by Public Works and will be made available to public and private project developers, specifically those who have expressed interest in developing a project and submitted a site to Public Works for evaluation.

A similar evaluation process was completed by Public Works in 2007; however, the marketplace of technologies has expanded and advanced since that time warranting additional review.

3.1.1 Technology RFEI

The objective of the technology RFEI was to solicit information on conversion technologies that are available for development in the U.S. market and would be available for application for one or more projects in the County of Los Angeles. The sole interest of the RFEI is for the use of conversion technologies that manage post-recycled MSW, food waste, and green waste. Also of interest, but to a lesser extent and at a lower priority, is the potential use of conversion technologies for management of other waste feedstock such as medical waste or biosolids. Through this RFEI, the County requested from conversion technology providers and/or project developers representing such providers, information on their technology, as well as qualifications and resources of their company.

By August 11, 2011, Public Works had received 35 responses from a variety of technology vendors including biological, thermal, mechanical, and chemical technologies. Please see attached Table 1 for a listing of those companies. Public Works is reviewing and evaluating the responses, and has begun tabulating the key information for qualified respondents into a database. The responses and tabulated database include information on the technology (e.g., a description and status of development), and identification of the respondent's concept for an optimum project(s) for commercial application of the technology, considering ideal project size and feedstock. As necessary, Public Works is confirming information with respondents, particularly for circumstances where qualification is uncertain. Public Works will provide your Board with additional information on the technology database in the next status report.

3.1.2 Financial RFEI

The objective of the financial RFEI was to identify financial services firms who are active in California and are interested in participating in a project within the County of Los Angeles. The RFEI specifically requested information on their experience, qualifications, and resources with respect to financial advisory services to public and private project developers and/or investment banking and similar transaction structuring, underwriting, and placement services. Eleven responses were received from the firms listed in the attached Table 2. Public Works is currently evaluating each submittal and has begun tabulating the key information into a database. Public Works anticipates that the available information will serve as an initial database resource that will be expanded over time with information from additional firms. Public Works will provide your Board with additional information on the financial services database in the next status report.

3.2 Site Evaluation

Phase IV of the County's Conversion Technology Project focuses on facilitating the development of commercial-scale conversion technology facilities in the County of Los Angeles for the purpose of providing alternatives to landfill disposal of post-recycled MSW. As previously described, an important component of Phase IV activities includes identifying and evaluating potential sites. Phase IV also includes working with stakeholders, including cities, solid waste facility owners and operators, and conversion technology companies, to encourage and facilitate the development of mutually beneficial projects within the County.

Sites previously identified in the Preliminary Siting Assessment and the subsequent April 2011 Status Update have remained under consideration. For a list of these sites and interested stakeholders, please see the attached Table 3. In addition, ongoing outreach efforts by Public Works have resulted in the identification of an additional candidate site, located at the Interior Removal Specialist, Inc. recycling facility in South Gate, California. An introduction to this new site is provided below. In our next status report, Public Works will include a comprehensive summary of developments on all the sites currently under consideration.

3.2.1 Interior Removal Specialist, Inc., South Gate, California

Interior Removal Specialist, Inc. (IRS Demo) is a full-service tenant improvement demolition company that specializes in commercial interior demolition as well as recycling of the resulting construction and demolition (C&D) debris. IRS Demo owns and operates its own recycling facility, Construction & Demolition Recycling, Inc., in South Gate, California. The facility provides diversion by commodity of tenant improvement C&D debris, including drywall, carpet, ceiling tile, steel, wood, and other materials. IRS Demo also operates a donation program, whereby it works with charitable organizations to divert reusable material from disposal.

IRS Demo has expressed interest in developing a conversion technology project at its facility in South Gate. The County met with IRS Demo and toured its facility. On August 31, 2011, prepared a document summarizing key background information for the site and suggested next steps for consideration to evaluate project feasibility.

3.3 Economic Modeling

Public Works is currently developing a set of economic models that will enable the County and Stakeholders to estimate tipping fees of various conversion technologies/facility sizes. The models will generate planning-level economic estimates and projections, and will include certain built-in assumptions as well as about a dozen user-specified variables that can be changed to reflect a community's particular project or circumstances (e.g., project size, public or private ownership, sale price of energy and other products, disposal price for residue, and other key factors). The models are being developed for both anaerobic digestion and thermal technologies, for project sizes ranging from approximately 100 tons per day up to 1,200 tons per day. Initial models have been loaded onto a website and are currently being tested and debugged for general application.

In addition to the development of the public-use economic models, Public Works has been conducting more detailed economic modeling for potential project development at the Calabasas Landfill. This more detailed modeling was the basis for development of the public-use models. Preliminary models have been run for 350 tpd, 700 tpd, and 1200 tpd facilities utilizing anaerobic digestion, pyrolysis, plasma, high and low temperature gasification, as well as an anaerobic digestion/gasification hybrid plant. Optimization analysis is being conducted for a small subset of the "best case" scenarios, incorporating the following aspects:

- a focused analysis of two facility sizes, 350 TPD and 700 TPD;
- the potential to reduce costs by the use of existing infrastructure, such as on-site electric generation equipment, the scale house and civil infrastructure already in place;
- a case considering potential cost savings with public ownership and financing;
- the use of grants to defray capital costs;
- the use of low interest loans (as examples, through the USDOE loan guarantee program, US Department of Agriculture programs and the California I-Bank) to lower borrowing costs when compared to the conventional debt scenarios assumed for the base case models;
- sensitivities regarding varying prices for recycled and recovered materials; and potentially,
- the availability and value of carbon credit revenues.

4 Additional Conversion Technology Updates

4.1 Conversion Technology Briefing to the White House

In June 2011, Dr. Eugene Tseng, a professor at UCLA and member of the County's Alternative Technology Advisory Subcommittee, met with the White House Council on Environmental Quality to brief them on various conversion technology projects across the Country. Dr. Tseng highlighted the efforts of the County in his briefing and discussed how key actions on the part of the Federal Government would benefit projects under development, especially:

- Acknowledging MSW as a renewable resource at the Federal level since many technologies exist to recover energy, fuels, and other beneficial products from this waste stream in an environmentally protective manner. This distinction would help spur the developments of these sophisticated technologies already proven and successfully operating for many years throughout Europe and Japan, and in the United States.
- Clearly defining and distinguishing between "waste-to-energy" and "non-combustion conversion technologies."
- Providing additional funding opportunities and/or financing assistance, such as the Department of Energy Loan Guarantee Program.

4.2 Gasification Determinations Issued by CalRecycle

In November 2010, Chief Counsel for the California Department of Resources Recycling and Recovery (CalRecycle) made the legal determination that two proposed conversion technology projects, being developed by the companies Rentech and Plasco, meet the definition of "gasification" as defined in California State Statue. These determinations are critical to the projects' development because if classified as gasification, waste processed by the facility would not be counted as disposal in measuring compliance with the state's waste diversion mandate; and energy generated by the facility would be considered renewable and thus eligible for higher pricing which would lower the waste disposal tip fee.

It is important that the County of Los Angeles continue to support CalRecycle in their decision, as it could potentially impact the development of future projects in the County of Los Angeles. As such, Public Works is currently identifying opportunities through our existing conversion technology outreach contract that would enable the County to focus outreach and education in this area.

4.3 Other Conversion Technology Projects in California

Numerous other conversion technology projects are in various stages of development in California. Many of these projects are still in the study phase or conducting preliminary planning activities. For example, the US Navy San Diego Naval Shipyard has identified a site for a conversion technology project and has formed a committee within the Navy for continuing project development activities. Currently, the Navy is looking to secure additional wastestream from the surrounding community for the project. Other public projects outside of Los Angeles County that are in the study phase include MSW projects in Orange County, and source-separated organic waste projects in Humboldt County and Palo Alto. San Jose has recently completed contract negotiations for a source-separated organic waste facility. Public Works is continuing to monitor the progress of development of these and other conversion technology projects within California.

Two publicly-sponsored conversion technology projects in California that have progressed beyond the study phase and into permitting and/or late-stage procurement/negotiation are the Salinas Valley Solid Waste Authority (SVSWA) project and the Santa Barbara project. A brief update on these two projects is provided below:

- On September 15, 2011, the SVSWA Board voted to proceed into the CEQA process for a 300 ton per day plasma arc gasification project to be located at the Authority's Johnson Canyon Landfill. This is the first commercial thermal conversion technology project to go into permitting in California. The SVSWA Board has authorized a professional services agreement for preparation of the Environmental Impact Report (EIR), and has entered into a funding agreement with Plasco Energy Group as the technology provider for reimbursement of costs associated with preparation of the EIR.

- The City and County of Santa Barbara, together with the jurisdictions of Goleta, Solvang, and Buellton, have substantially completed their procurement process for a conversion technology project to process approximately 600 tons per day of post-recycled municipal waste at the County's Tajiguas Landfill. Following a detailed review and evaluation of proposals, two companies have been chosen as finalists: Mustang Renewable Power Ventures for an anaerobic digestion project, either with or without a companion gasifier, and Plasco Energy Group for a plasma gasification project. Both companies would provide front-end processing systems to recover additional recyclables. A committee of elected officials is in the process of obtaining public input on the proposals, with selection of a preferred project anticipated later this year.

4.4 Funding to Support Future Conversion Technology Research and Evaluation

Public Works continues the State and Federal efforts on potential funding support for the three demonstration projects. In 2010, Public Works supported CR&R, Inc., as it was firming up its project arrangements, including financing. CR&R, Inc., was awarded a grant by the California Energy Commission (CEC) and is in the process of arranging the balance of the financing needed for its project. As the Rainbow and IES projects become more finalized, project-specific funding support will be pursued for these projects. Currently, Public Works is focusing on pursuing funding support for its on-going conversion technology program planning activities, and is developing a plan specifically for this. In addition to pursuing specific planning task funding, Public Works is contemplating a broader program that would enable the County to serve as a project information and planning resource for the State, as well as supporting County-specific activities. This concept is in the early stages of development.

5 Next Steps

- Continue to monitor permitting activities of the CR&R, Inc., project, including the upcoming public hearing for certification of a mitigated negative declaration, and continue to monitor progress of development of this project.
- Complete review of the alternative technology for anaerobic digestion currently being pursued by CR&R, Inc.
- Continue discussions with Rainbow and IES regarding their demonstration projects, including, as applicable, review of alternate technologies or sites, if proposed.
- Determine if revised MOUs are necessary for one or more of the demonstration projects. If necessary, submit those revised MOUs to your Board for approval.
- Complete the review and evaluation of the technology and financial RFEI responses, and continue with development of the on-line database for the technology companies and financial firms who meet the minimum criteria outlined in the RFEIs.
- Complete the on-line economic model template for use by the County's stakeholders.
- Complete the economic model for Calabasas Landfill and meet with County CEO and Sanitation Districts to discuss next steps.

- Continue to work with stakeholders interested in developing a project at a site identified in the 2010 Preliminary Siting Assessment or the subsequent status updates. Evaluate status of project development activities for the identified stakeholders and prioritize those that offer the greatest potential for bringing a project forward in the near future.
- Continue to track both State and Federal project funding opportunities while simultaneously developing a short-term plan to obtain support for the County's ongoing planning activities; analyze State priorities and resources available for planning support, and maintain contacts to stay current on potential Federal support.
- Closely follow and support the progress of other conversion technology projects in the permitting process in California such as the Plasco Salinas Valley plasma gasification project.

Table 1: Technology RFEI Respondents

Respondent Name	Technology Type
Alter NRG Corporation	Plasma Gasification (Westinghouse)
Biogas Energy, Inc.	Anaerobic Digestion
BioGold Fuels Corporation	Plasma Gasification (Alter NRG) (Westinghouse)
CBES Global, LLC	Gasification
CCI BioEnergy	Anaerobic Digestion
Clean World Partners	Anaerobic Digestion
CR&R, Inc., with Organic Waste Systems	Anaerobic Digestion (DRANCO)
EcoTech Fuels, LLC	Waste-to-Synfuel
Environmental Energy Resources/SNC-Lavalin	Plasma Gasification
Envirepel Energy, Inc.	Combustion-gasification
Harvest Power	Anaerobic Digestion
Holloway Environmental/Entech	Gasification
Innovative Energy Solutions, Inc.	Thermocatalytic Cracking (Catalyst-Assisted Waste Hydrocarbon to Fuel)
Interstate Waste Technologies	Gasification (Thermoselect)
MaxWest Environmental Systems	Gasification
Mustang Renewable Power Ventures	AD (Bekon) with Gasification (Waste 2 Energy)
NRG Energy, Inc.	Plasma Gasification (Westinghouse)
Orgaworld	Anaerobic Digestion
Plasco Energy Group	Plasma Gasification
Primenergy	Gasification
Princeton Environmental Group	Gasification
Pyrogenesis Canada, Inc.	Pyrolysis
RCR International	Thermal Hydrolysis (Autoclave)/Combustion
Renewable Energy Resources, Inc.	Pyrolysis/Steam Reformer
Ros Roca Envirotec	MBT (MSW) or AD (food waste)
Strategic Management Group w/Entec biogas USA	Anaerobic Digestion
Taylor Biomass	Gasification
Technip USA, Inc.	Plasma Gasification (Westinghouse)
Terrabon, Inc., w/Waste Management California	Acid Fermentation/Chemical Proc. (MixAlco)
Urbaser, Inc.	Anaerobic Digestion (Valorga)
Urbaser, Inc.	Gasification (Energos AS)
Vorus Biopower	Mechanical Proc./Fluid Bed Combustion

Waste to Energy, LLC/BioEnergy Design, LLC	Gasification
WSI Management, LLC	Autoclave/Mechanical Proc./Gasification
Zero Waste Energy, LLC	Anaerobic Digestion (Kompoferm)
Arrow Bio (vetted through Phase II process)	Anaerobic Digestion
IES (vetted through Phase II process)	Pyrolysis

Table 2: Financial RFEI Respondents

Backstrom McCarley Berry & Co., LLC
Cooperman Associates
De La Rose & Co.
Government Financial Strategies, Inc
KNN Public Finance
Morgan Stanley
Public Financial Management, Inc
SNW: Innovative Financing and Investment Strategies
Stern Brothers & Co.
Wells Fargo Securities
William Blair & Company

Table 3: Stakeholders Who Have Expressed Interest in Siting a Conversion Technology Facility or Partnering on a Project

Municipal Interest	**Site Identified**
Avalon	Pebbly Beach Landfill
Beverly Hills	To be determined
Calabasas	Calabasas Landfill
Carson	Four sites including the city corporate yard currently used for their public works operations.
Glendale	Scholl Canyon Landfill
Lancaster	Two sites including Lancaster Landfill
Long Beach	Site to be determined in the Long Beach Port
Los Angeles	To be determined
Pico Rivera	To be determined
Santa Clarita	To be determined
Torrance	To be determined
Vernon	To be determined
Private Interest	
BLT Enterprises	To be determined
Calmet Services	Material Recovery Facility (MRF) in Paramount
Green City Development, Inc	Site in Santa Clarita
Interior Removal Specialists	MRF in South Gate
Mustang Power (The Dewey Group)	Site in Sylmar
New Generation Technology	Site in Palmdale
Pacific Coast Waste & Recycling	Four sites located in unincorporated County of Los Angeles, Inglewood & Compton
Southland Disposal	MRF in City Terrace
Waste Resources Recovery	MRF in unincorporated area near Gardena

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

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October 29, 2012

IN REPLY PLEASE
REFER TO FILE: EP-4
A-3454-4

TO: Each Supervisor

FROM: Gail Farber
Director of Public Works

BOARD MOTION OF APRIL 20, 2010, ITEM NO. 44
CONVERSION TECHNOLOGIES IN LOS ANGELES COUNTY
SIX MONTH STATUS UPDATE: APRIL 2012 THROUGH OCTOBER 2012 UPDATE

On April 20, 2010, the Board unanimously approved Memoranda of Understanding for three conversion technology demonstration projects and awarded a contract for consultant services for the demonstration and commercial phases of the Southern California Conversion Technology Demonstration project to solid waste alternatives to landfills within Los Angeles County.

At that time, the Board also instructed the Director of Public Works, in coordination with appropriate stakeholders, to assess the feasibility of developing a conversion technology facility at one or more County landfills; to identify other potentially suitable sites within Los Angeles County, and to report back to the Board within six months. In October 2010 Public Works submitted a preliminary siting assessment in response to this request and committed to providing the Board with a status report on our efforts every six months.

The attached status update summarizes the efforts Public Works has undertaken to advance conversion technology development in Los Angeles County during April 2012 through October 2012. Highlights from the last six months include:

- Coordination of and participation in educational meetings between key Sacramento regulatory agencies and a stakeholder delegation of jurisdictions, utilities, and environmental groups. These meetings were convened to discuss Statewide regulations, project efforts, and various benefits of conversion technologies.

- Continued provision of technical and planning services to potential County-based conversion technology projects. Several projects have made significant progress, and two cities (Glendale and Avalon) have released requests for proposals.

- Participation in the stakeholder process for development of CalRecycle's report to the State legislature on how to achieve the State's 75 percent recycling goal. The recommendations thus far developed have the potential to significantly impact solid waste management in the State, including conversion technology development.

- Unanimous adoption of Supervisor Knabe's September 25, 2012, conversion technology motion. As requested by the Board, this report includes a summary of priority next steps that Public Works will pursue to implement this motion.

Public Works will continue to work with stakeholders to move forward with project development activity at the sites selected within the County. Our next status report will be submitted to your Board by April 20, 2013.

TM/CS:kp
P:\SEC\EP-4\A-3454-ADraft CT Report Cover Letter

Attach.

cc: Chief Executive Office
County Counsel
Department of Public Health
Department of Regional Planning
Los Angeles County Integrated Waste Management Task Force
Regional Planning Commission
Sanitation Districts of Los Angeles County

BOARD MOTION OF APRIL 20, 2010, ITEM 44
CONVERSION TECHNOLOGIES IN LOS ANGELES COUNTY
SIX MONTH STATUS UPDATE: APRIL 2012 THROUGH OCTOBER 2012

1 Introduction

On April 20, 2010, the Los Angeles County Board of Supervisors (Board) unanimously approved Memoranda of Understanding (MOUs) to develop three demonstration conversion technology projects as part of the Southern California Conversion Technology Program. The purpose of the Program is to encourage the development of conversion technologies as alternatives to landfills for the management of solid waste in the County. Board action on April 20, 2010, also awarded a contract for consultant services for the Program's demonstration and commercial phases. The Board also approved a motion instructing the Director of the Los Angeles County Department of Public Works (Public Works), in coordination with appropriate stakeholders, to assess the feasibility of developing a conversion technology facility at one or more County landfills and to identify other potential facility sites within Los Angeles County. The motion further directed Public Works to report to the Board in six months with its findings.

In October 2010 Public Works submitted a Preliminary Siting Assessment to the Board identifying potential project sites proposed by eleven municipalities and nine private companies. Since that time, Public Works has worked with interested stakeholders to evaluate additional possible project locations within the County.

Public Works prepares a status report every six months to regularly inform the Board of conversion technology project developments. This report provides a summary of key accomplishments from April 2012 to October 2012 that advance the development of conversion technology projects in the County.

2 Project Background

For over a decade, Public Works has evaluated and promoted the development of conversion technology facilities as an alternative to the landfilling of solid waste by the County's municipalities and communities. In addition to diverting solid waste from landfill disposal, such facilities produce renewable energy (whether electric, or as gaseous or liquid fuels), reduce environmental impacts, and create local green-collar jobs. Together with technical and public outreach consultants, Public Works has vetted various non-combustion thermal, biological, chemical, and mechanical conversion technologies, assessed potential project sites, worked with local and State agencies to create a permitting pathway for the technologies, and created a Countywide public outreach plan to educate stakeholders about the benefit of these technologies.

3 Conversion Technology Legislation

Several key developments have taken place over the last six months that have brought the topic of conversion technology regulations to the forefront of State and local policy discussions.

Existing California statutes and regulations offer an assortment of definitions and requirements regarding conversion technologies. Current definitions lack a scientific basis and are therefore inconsistent, with some conversion technologies defined as incineration, others defined as composting, one technology (gasification) defined incorrectly, and many technologies simply undefined, creating uncertainty for permitting and making it challenging to obtain financing for new projects.

A tipping point occurred in May when the California State Department of Resources Recycling and Recovery (CalRecycle) made the decision to rescind their previously issued determination that the first thermal conversion technology project in California, proposed by Plasco Energy in Salinas Valley, was a "gasification" project as defined in Statute. The previous determination allowed the project to obtain precertification from the California Energy Commission (CEC) as a renewable energy generating facility and thus eligible for credit under the State's Renewable Portfolio System (RPS).

On June 1, 2012, following strong concerns from Plasco and other stakeholders regarding CalRecycle's action, Governor Brown's office sent a follow up letter to Plasco stating "*the Governor's Office will be supportive of legislation during the current session to allow Plasco's project to proceed on a pilot basis and be considered an eligible renewable energy resource under State law. In addition, we fully support CalRecycle's efforts to develop alternative policies regarding waste to energy in California, including developing a technology-neutral, feedstock-based performance standard that could eventually be used in place of the definition of gasification for determining RPS eligibility.*"

Unfortunately, Plasco could not find a legislator willing to sponsor legislation prior to the end of the legislation session. As a result, in late August 2012, Plasco suspended all activities related to the development of their gasification project in Gonzales, California. and instead are pursuing projects outside of California.

The issue of addressing these outdated regulations and the risk and uncertainty they create for project developers became the focus of the Los Angeles County Board of Supervisors' recent motion, as described below.

3.1 September 25, 2012, Motion by Los Angeles County Board of Supervisors

On September 18, 2012, Supervisor Don Knabe introduced a motion for consideration at the September 25, 2012, Board meeting by saying, "Conversion technologies are critical to ensuring the County's ability to manage its waste in the future, thereby protecting public health and safety, and the environment, yet many companies have decided not to pursue projects here due to uncertainty created by California's outdated

regulations". On September 25, 2012, the Board of Supervisors unanimously approved the motion, directing Public Works, in conjunction with the Chief Executive Office, to work with the Sanitation Districts of Los Angeles County and other key stakeholders to:

- Actively pursue and support the passage of State and Federal legislation and regulations that would establish a clear pathway to encourage the development of conversion technologies; including clarification of the definition of conversion technologies and ensuring they qualify for appropriate incentives for producing renewable energy, reducing landfill disposal, and producing low carbon fuels.

- Support legislation to provide renewable energy status and to continue to provide diversion credits and other incentives for energy production at existing facilities in Los Angeles County that generate energy from waste.

- Outreach to State agencies and other stakeholders to share information on the technical performance and multi-faceted benefits of conversion technologies, such as their role in meeting the solid waste management needs of local jurisdictions, producing green fuels, and reducing greenhouse gas emissions.

- Work with conversion technology companies to identify potential regulatory changes that are necessary to streamline the permitting process to allow conversion technology facilities to flourish in California, while complying with California's strict environmental standards.

To implement this motion, Public Works will coordinate with other relevant stakeholders, as described above, to advance the County's legislative agenda and carry out each aspect of the motion. Specifically, the table below provides a summary of the key activities Public Works will pursue as well as timeframes for each item:

Action	**Time Needed to Implement**
Work with the County's legislative advocates in Sacramento and Washington, D.C. to identify opportunities to sponsor or support legislation.	Within 6 months of this Report
As appropriate, meet with key legislative staff to garner support for legislation.	Ongoing
Coordinate with CalRecycle and other State regulatory agencies to share technical information regarding conversion technologies and pursue updated regulations and legislation.	Within 6 months of this Report
Host workshops and tours to promote awareness among stakeholders.	Within 6 months of this Report
Communicate with conversion technology developers, through an online survey, direct outreach, and other mechanisms, to identify changes and incentives needed to move conversion technologies forward. This would include companies with projects in development in other States.	Within 6 months of this Report
Continue public education efforts, including presentations, educational booths at conferences and schools, and print media.	Ongoing

4 Other Regulatory Issues

4.1 2012 Bioenergy Action Plan

Governor Brown's 2012 Bioenergy Action Plan (Action Plan) is a coordinated action plan by a number of State agencies that describes common strategies and objectives to increase development of renewable energy derived from organic waste. The Action Plan also acts to preserve California's environmental health, to reduce waste, encourage green jobs and economic development, and to strongly encourage development of alternatives to reliance on landfills, incineration, and fossil fuels. The Action Plan advances the development of cost-effective biofuels and renewable electricity, the commercialization of successful new technologies, the streamlining of regulatory and permitting processes for project development, and the quantifying and monetizing of bioenergy benefits.

The long-term objective of the Action Plan -- to create a competitive bioenergy market in California, including biopower, biofuels, and biogas, closely aligns with the goal of the County's conversion technology program to convert household trash into renewable energy, biofuels, and other useful products. The Action Plan's near-term objectives listed below also align with the goals of the County and the Los Angeles County Solid Waste Task Force, including supporting further clarification and streamlining of State goals, performance standards, terminology, and incentives for conversion technology development.

- The Action Plan's near term objective to codify legislation and issue executive direction for increased biomass use through bioenergy development is consistent with support in the County's legislative platform for legislation to develop renewable energy through conversion technologies. The County's legislative platform further supports legislation designating all energy produced by conversion technologies as renewable energy.

- The Action Plan's objective to facilitate growth of California's bioenergy industry by streamlining and clarifying the regulatory and permitting process for project developers and permitting officials is also a primary goal of the County's conversion technology program. The County's legislative platform also supports a technology-neutral permitting process based on performance standards.

- The Action Plan's goal of front-end processing standards to ensure that recyclables are removed prior to bioenergy production is supported by the County's legislative platform. However, the County's legislative platform also presses for clarification of overlapping solid waste and recycling authority, and a greater emphasis on waste diversion program implementation rather than quantification and measurement.

- The Action Plan seeks to allocate funding from the Electric Program Investment Charge and Low Carbon Fuel Standard towards encouraging bioenergy development in the State. The County's legislative platform supports increased funding for research and development of conversion technology projects.

4.2 AB 341 Regulatory Process and Potential Impacts on Conversion Technology Development in California

On May 9, 2012, CalRecycle released a white paper entitled "California's New Goal: 75 percent Recycling" to meet the State's 75 percent recycling, composting, and source reduction goal by 2020, as mandated by Assembly Bill 341 (AB 341, 2011 Statutes). Following stakeholder review and input, this white paper will be developed into a Report to the Legislature and submitted by January 1, 2014. In order to meet the State's goal of 75 percent recycling, composting, and source reduction by 2020, CalRecycle has outlined monumental structural and legislative changes to the way solid waste has been managed in California for the last several decades.

One of the concerns regarding AB 341 is that it specified only source reduction, recycling and composting as options for achieving the stated 75 percent goal. Using this narrow definition, it would be very challenging and costly for the State to reach the 75 percent goal without including conversion technologies. Although one of the key policy drivers highlighted in the white paper was to "reduce dependence on oil by increasing in-State production of bioenergy/biofuels," there was no mention of conversion technologies in the white paper's 10 implementation concepts. Excluding conversion technologies from the 75 percent goal not only makes it more difficult to achieve the goal, it also limits conversion technology facilities to receiving only the remaining 25 percent of the wastestream as feedstock. The white paper also indicates that, prior to conversion or other beneficial use, materials in the "other 25 percent" would need to be further processed to separate *additional* recyclables from the waste stream. This issue will require continued stakeholder involvement to ensure the net result does not create even more barriers to the adoption of conversion technologies in the State.

In May Public Works participated in a workshop hosted by CalRecycle, following up with a detailed comment letter on June 27, 2012, outlining this concern as well as others regarding the white paper. Subsequent discussions have taken place between Public Works and CalRecycle. CalRecycle hosted another workshop on September 19, 2012, regarding "the other 25 percent" and what performance standards might be used to maximize recovery of materials for recycling prior to conversion or disposal.

5 Public Outreach

In May 2012 Public Works' public outreach team and a delegation of jurisdictional, utility, and environmental representatives participated in meetings with the following key decision-makers in Sacramento:

- Carla Peterman, Commissioner of California Energy Commission (CEC)
- Caroll Mortensen, Director of CalRecycle
- Mary Nichols, Chair of the California Air Resources Board
- John Laird, Secretary of the Department of Natural Resources

The purpose of these meetings was to introduce several California-based projects to the agency representatives, discuss the various environmental and economic reasons stakeholders support conversion technologies, and identify key barriers that are currently presenting challenges towards successful implementation. Specific definitions in State Law continue to be problematic to the development of projects because they are scientifically inaccurate. A majority of the agency representatives acknowledged this issue needs to be addressed. Two other key points were discussed at these meetings: 1) criteria needed in order for conversion technology facilities to be able to receive renewable energy credit under the Renewable Portfolio Standard, and 2) what feedstock will qualify as renewable.

Stakeholder workshops relating to the implementation of the State's 75 percent waste reduction, recycling, and composting goal may be helpful in addressing these points, as well as the release of the Governor's 2012 Bioenergy Action Plan which is described in greater detail below.

Over the last six months, Public Works' outreach team, continued to be focused on public and private stakeholder outreach, primarily working with stakeholders at the State level to advance statewide policy conversations that would impact projects in the County and throughout the State. Public Works participated in various local and statewide conferences, providing several presentations, hosting public outreach booths and providing educational briefings. These venues have provided an opportunity to reach a diverse set of stakeholders, including elected officials, environmental organizations, relevant technology and project development companies, and interested community members.

Participation has included:

- Biocycle (April 2012)
- California Contract Cities Annual Municipal Conference (May 2012)
- APWA Congress (August 2012)

- County Engineers Association of California Conversion Technology Working Group (March and September 2012). This newly formed Working Group is chaired by Public Works' Assistant Deputy Director for Environmental Programs Division, Mr. Pat Proano. The Working Group is made up of jurisdictions in California who are pursuing conversion technology projects.

- CalRecycle Conversion Technology Workshop (November 2012). Public Works will cohost this forum with CalRecycle to discuss key issues regarding conversion technology regulations and future opportunities for projects in California.

5.1 Website

Since 2007, Public Works has maintained a website dedicated to the County's program and sends a monthly e-newsletter to over 1,500 recipients. Public Works' staff in conjunction with the County's outreach consultant recently completed a major update for this website. The new website is more visually appealing, easier to navigate, and includes several new features:

- Technology Vendor Database – Allows visitors to search and explore detailed information on 36 technology vendors who passed the County's evaluation criteria in the 2011 Request for Expressions of Interest.

- Financial Firm Listing – Provides a listing of financial institutions that provide funding to renewable energy projects and have expressed interest in conversion technologies.

- California Projects – Links to other California project websites to learn what is happening throughout the Golden State.

- Resources – Showcases the County's latest outreach materials, project reports, and other news of interest.

The site is tied on an electronic newsletter that has over 1,150 subscribers.

6 Update on Phase III Demonstration Projects

On April 20, 2010, your Board approved Memoranda of Understanding with CR&R Incorporated (CR&R), Rainbow Disposal Company (Rainbow), and International Environmental Solutions (IES). Due to economic and financial constraints, projects proposed by Rainbow and IES are indefinitely on hold; however CR&R's project has made significant process towards development over the past six months.

6.1 CR&R Incorporated

CR&R, a local solid waste management company, is developing the 150 ton per day AD project at its Perris Materials Recovery Facility (MRF) and Transfer Station (TS). Public Works actively assisted CR&R in pursuing funding for the facility, and the company was awarded a grant of more than $4.5 Million from the CEC in January 2011. Since that time, the City of Perris approved the facility's Conditional Use Permit and Mitigated Negative Declaration, as required by the California Environmental Quality Act (CEQA), indicating the project will have no significant impacts on the environment. CR&R is working closely with CalRecycle and South Coast Air Quality Management District (SCAQMD) on their solid waste facility permit and air quality permit, respectively. The project has also been successful in obtaining two additional grants from the CEC and SCAQMD to pay for a portion of the Compressed Natural Gas (CNG) fueling station that will be located onsite for fueling the company's hauling fleet. The fueling station is expected to be in operation in 2013 and the anaerobic digestion (AD) facility, on track to begin operation in 2014, could become a model for the production of renewable biogas in California.

Following recent discussions between Public Works and CR&R, it was agreed by both parties that the project has successfully progressed to the point where CR&R no longer needs technical, grant, or permitting assistance from Public Works. As a result, Public Works and CR&R will no longer work through the MOU, instead continuing to work together to advance the project informally. In particular, Public Works will coordinate with CR&R regarding:

- Market development of the high-quality digestate produced by the AD facility and;
- Identifying market rate opportunities to increase waste tonnage directed to the facility.

This collaboration is expected to be mutually beneficial to Public Works and CR&R, fostering the development of conversion technologies on a broader scale in Los Angeles County.

7 Update on Phase IV Commercial Projects

A discussion of all eighteen sites considered within Los Angeles County was included in the April 2012 Report to the Board of Supervisors. This report provides updates on those sites that have progressed in project development since April 2012.

7.1 Calabasas Landfill, City of Calabasas/County of Los Angeles

The Calabasas Landfill is owned by the County of Los Angeles and operated by the County Sanitation Districts (CSD). In 2011, Public Works conducted a preliminary feasibility analysis evaluating various options for siting a conversion technology facility at the landfill that would 1) extend the life of the existing landfill, and 2) increase the financial viability of the landfill.

The feasibility analysis determined that a 700 tpd AD project at the Calabasas Landfill could provide significant benefits to both the County and the CSD.

On July, 3, 2012, the County's Chief Executive Officer submitted a letter to your Board requesting authorization to:

- Expend funds from the County Refuse Disposal Trust Fund to reimburse the Calabasas Landfill Capital Fund for the debt service payment on the Calabasas Landfill Project revenue bonds.
- Restructure existing long-term debt to provide near-term savings and better align debt service payments with future operational revenues at the Landfill.
- Prepare the necessary environmental documentation for a possible future recommendation to amend the County ordinance that sets rates for the Calabasas Landfill, and the County ordinance that established the wasteshed area, to allow for contracts with large volume waste haulers.
- Request approval from the State to substitute a Pledge of Revenue as an alternative Financial Assurance mechanism for Post-closure Maintenance of the Calabasas Landfill.

Further steps by Public Works to pursue a conversion technology project at the Calabasas Landfill are on hold at this time.

7.2 Scholl Canyon Landfill, City of Glendale/County of Los Angeles

The City is moving forward with plans to develop a conversion technology project at the Scholl Canyon Landfill. The landfill is located in the City of Glendale on property owned jointly by the City (90 percent) and the County (10 percent). It is operated by CSD. On May 31, 2012, Public Works participated on a technical panel for the City of Glendale to review top-ranked responses to their Request for Qualifications and Technical Information (RFQ-TI). The City is continuing to evaluate potential next steps following this review.

7.3 Pebbly Beach Landfill, City of Avalon

At the request of the City of Avalon, Public Works has prepared a conversion technology Assessment that considered multiple options for a conversion technology facility to be located at the Pebbly Beach Landfill on the Island of Catalina. The Assessment took into account the solid waste management system on the island and the economic constraints. Several conversion technology company sponsors were identified through the Public Works' technology database that could provide small scale conversion systems in the capacity range required by Avalon for processing post-recycled municipal solid waste (MSW), biosolids, green waste/food waste, and possibly other materials such as restaurant grease. These representative technology company sponsors have expressed interest in working with the City. In the meantime, the City of Avalon released a Request for Proposals (RFP) for residential and commercial waste

collection, operation of the MRF, hazardous waste collection facility, and landfill. The RFP requests proposers to integrate waste to energy system into the contract.

7.4 City Terrace MRF, Southland Disposal

In July 2012, City Terrace Recycling, LLC submitted their application to the County of Los Angeles Department of Regional Planning requesting revisions to their Conditional Use Permit (CUP) for an existing solid waste and recyclable material transfer station. The company initiated the first phase of CEQA by submitting an Initial Study for a proposed project that consists of two phases. Phase I consists of increasing the daily waste intake of mixed MSW, including recyclable materials from 700 tons per day (tpd) to 1,500 tpd while retrofitting and expanding the existing facility. Phase II consists of a new receiving and load-out building as well as a small anaerobic digestion facility to convert organic waste to biogas, which will be cleaned and used to replace CNG fuel.

7.5 South Gate MRF, Interior Removal Specialists (IRS) Demo

IRS Demo has expressed interest in developing a conversion technology project at its construction and demolition debris recycling facility in South Gate. In May 2012, Public Works prepared and submitted a memo to IRS Demo with a recommendation to define the quantity and characteristics of the waste to be processed at a potential conversion technology project. In September 2012, Public Works provided IRS Demo with a listing of conversion technology companies from the County's RFEI database that could potentially process IRS Demo's wastestream and integrate into their South Gate MRF.

8 Next Steps

Over the next six months, Public Works will actively engage on multiple fronts to implement the Board of Supervisors' directive to advance conversion technology legislation in the State and create a clear pathway for their development. Among these efforts, Public Works will:

- Work with CalRecycle and appropriate stakeholders to pursue legislation or policy changes that would establish a viable permitting process for these alternatives based on performance standards rather than prescriptive definitions; provide full diversion and greenhouse gas emission reduction credits for these alternatives under applicable State law; and provide that all energy produced by these conversion technology facilities be designated as renewable energy.

- Coordinate tours of Material Recovery Facilities with CalRecycle, County Engineer Association of California (CEAC), and other appropriate stakeholders.

- Provide technical and public outreach resources as needed to propose conversion technology projects located within the County.

- Monitor the permitting, design, and construction of the CR&R project.

- Work through CEAC/California State Association of California (CSAC) to expand the efforts of the conversion technology Working Group, generating interest among more jurisdictions and encouraging participation.

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COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

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IN REPLY PLEASE
REFER TO FILE: EP-4
A3454-6

October 23, 2013

TO: Each Supervisor

FROM: Gail Farber
Director of Public Works

BOARD MOTION OF APRIL 20, 2010, ITEM NO. 44
CONVERSION TECHNOLOGIES IN THE COUNTY OF LOS ANGELES
SIX-MONTH STATUS UPDATE: APRIL 2013 THROUGH OCTOBER 2013

On April 20, 2010, the Board approved memoranda of understanding for three conversion technology demonstration projects and awarded a contract for consultant services for the demonstration and commercial phases of the County of Los Angeles conversion technology project, with the objective of developing alternatives to solid waste landfills within the County.

At that time, the Board also instructed the Director of Public Works, in coordination with appropriate stakeholders, to assess the feasibility of developing a conversion technology facility at one or more County landfills; to identify other potentially suitable sites within the County; and to report back to the Board within six months. In October 2010, Public Works submitted a preliminary siting assessment in response to this request and committed to providing the Board with a status report on our efforts every six months.

Subsequently, on September 25, 2012, the Board approved a motion by Supervisor Knabe directing Public Works, in conjunction with the Chief Executive Office, to work with key stakeholders to pursue and support the passage of legislation and regulations to encourage development of conversion technologies, including appropriate incentives for producing renewable energy, reducing landfill disposal, and producing low-carbon fuels.

The attached status update for April 2013 through October 2013 summarizes the efforts Public Works has undertaken in response to these Board actions to advance conversion technology development in the County.

The most significant efforts undertaken by County staff this year, led by the Chief Executive Office with support from Public Works, revolved around supporting the passage of legislation to advance conversion technologies in California. In February 2013, Senator Ricardo Lara introduced Senate Bill 804, sponsored by the County in conjunction with the California State Association of Counties. SB 804 would have added noncombustion conversion technologies to the definition of biomass conversion, creating a clear permitting pathway for these technologies while providing incentives to divert biomass from landfill disposal. Following significant efforts, SB 804 was passed by both houses of the Legislature. Unfortunately amendments made to SB 804 during the double-referral to Assembly Member Alejo's committee on Environmental Safety and Toxic Materials created complex regulatory roles for the California Department of Resources, Recycling and Recovery (CalRecycle) and South Coast Air Quality Management District, which proved to be very detrimental. Ultimately, CalRecycle was able to convince Governor Brown that these amendments made SB 804 unworkable and that CalRecycle should be allowed to develop their own fix for biomass conversion. As a result, on October 11, 2013, Governor Brown vetoed the measure, citing concerns with the last minute amendments to SB 804.

However, in his veto message Governor Brown indicated that he supported the intent of SB 804, and directed CalRecycle to work with stakeholders to "develop a sensible approach that would apply to all biomass facilities irrespective of the technologies used." The development of conversion technologies within the County continues to be important for the long term in order to provide alternatives to the export of waste to remote landfills outside the County. As such, we will continue to participate in the stakeholder process outlined by Governor Brown in order to pursue the County's adopted legislative priorities.

Additional highlights from the past six months include the following:

- Conducted a conversion technology survey to public and private stakeholders requesting feedback on legislative actions, regulatory changes, and incentives that are necessary to facilitate development of conversion technologies in California.

- Issued the second iteration of the Request for Expressions of Interest to technology vendors and financial firms. Seventeen new companies submitted information to be included in Public Works' online database, and numerous companies supplied updated information.

- Continued providing technical and planning services and information to potential conversion technology projects located in the County. This included serving on the proposal review panel for Glendale's anaerobic digestion project at the Scholl Canyon Landfill.

Public Works will continue to work with stakeholders to move forward with project development activities at sites within the County. Our next status report will be submitted to the Board by April 17, 2014.

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Attach.

cc: Chief Executive Office (Rita Robinson)
County Counsel
Executive Office
Department of Public Health
Department of Regional Planning
Los Angeles County Integrated Waste Management Task Force
Regional Planning Commission
Sanitation Districts of Los Angeles County

BOARD MOTION OF APRIL 20, 2010, ITEM NO. 44
CONVERSION TECHNOLOGIES IN THE COUNTY OF LOS ANGELES
SIX-MONTH STATUS UPDATE: APRIL 2013 TO OCTOBER 2013

1 Introduction

On April 20, 2010, the County of Los Angeles Board of Supervisors unanimously approved three memoranda of understanding to develop demonstration conversion technology projects as part of the Southern California Conversion Technology Program. The purpose of the program is to encourage the development of conversion technologies as alternatives to landfills for the management of solid waste in the County. Board action on April 20, 2010, also awarded a contract for consultant services for the program's demonstration and commercial phases. The Board also approved a motion instructing the Director of the Department of Public Works, in coordination with appropriate stakeholders, to assess the feasibility of developing a conversion technology facility at one or more County landfills and to identify other potential facility sites within the County. The motion further directed Public Works to report to the Board in six months with its findings.

In October 2010, Public Works submitted a Preliminary Siting Assessment to the Board identifying potential project sites proposed by 11 municipalities and 9 private companies, and committed to providing the Board with a status report on our efforts every six months. Since that time, Public Works has worked with interested stakeholders to evaluate additional possible project locations within the County.

Subsequently, on September 25, 2012, the Board approved a motion by Supervisor Knabe directing Public Works, in conjunction with the Chief Executive Office (CEO), to work with key stakeholders to pursue and support the passage of legislation and regulations to encourage development of conversion technologies, including appropriate incentives for producing renewable energy, reducing landfill disposal, and producing low-carbon fuels.

This report provides a summary of key actions and accomplishments by Public Works, in concert with the CEO and the County's legislative advocates in Sacramento, in response to the above Board actions, for the period of April 2013 to October 2013. Most significant among those actions are efforts to support the passage of Senate Bill 804 (SB 804), cosponsored by the County and the California State Association of Counties (CSAC) and authored by Senator Ricardo Lara, as discussed in Section 3 below. Although ultimately vetoed by Governor Brown, the passage of SB 804 by both houses of the State Legislature represents a historic achievement in a multiyear effort to establish a permitting pathway for conversion technologies in California. The Governor's veto message presented a clear indication of his support for future efforts to address this issue, and we remain committed to participating in that effort in order to advocate for the County's position, in support of our need to provide safe and adequate solid waste management capacity for all 10 million residents in the County.

2 Project Background

For over a decade, Public Works has evaluated and promoted the development of conversion technology facilities as an alternative to the landfilling of solid waste. In addition to diverting solid waste from landfill disposal, such facilities produce renewable energy (electricity, gaseous, or liquid fuels), reduce environmental impacts, and create local green-collar jobs. Together with technical and public outreach consultants, Public Works has vetted various noncombustion thermal, biological, chemical, and mechanical conversion technologies, assessed potential project sites, worked with local and State agencies to create a permitting pathway for the technologies, and created a Countywide public outreach plan to educate stakeholders about the benefit of these technologies.

One of the most significant barriers to the development of conversion technologies in California has been inconsistent definitions and other provisions in State laws and regulations, which act as disincentives to the development of conversion technologies. To address this issue, on September 25, 2012, the Board approved a motion directing Public Works, in conjunction with the CEO, to work with the Sanitation Districts of Los Angeles County and other key stakeholders to:

- Actively pursue and support the passage of State and Federal legislation and regulations that would establish a clear pathway to encourage the development of conversion technologies; including clarification of the definition of conversion technologies and ensuring they qualify for appropriate incentives for producing renewable energy, reducing landfill disposal, and producing low-carbon fuels.
- Support legislation to provide renewable energy status and to continue to provide diversion credits and other incentives for energy production at existing facilities in the County that generate energy from waste.
- Outreach to State agencies and other stakeholders to share information on the technical performance and multifaceted benefits of conversion technologies, such as their role in meeting the solid waste management needs of local jurisdictions, producing green fuels, and reducing greenhouse gas emissions.
- Work with conversion technology companies to identify potential regulatory changes that are necessary to streamline the permitting process to allow conversion technology facilities to flourish in California, while complying with California's strict environmental standards.

3 Conversion Technology Legislation

During the 2013-14 California Legislative Session several bills relating to solid waste conversion technologies were introduced in the State Legislature. Assembly Bill 1126 (AB 1126) authored by Assembly Member Gordon created the definitions "Engineered Municipal Solid Waste Conversion" and "Engineered Municipal Solid Waste Conversion Facility" and made conforming changes to existing definitions with regard to the operations and facilities. SB 804 authored by Senator Lara proposed to revise the definition of "biomass conversion" to include conversion technologies that produce

marketable products or fuels from biomass materials. In addition to SB 804 Senator Lara authored Senate Bill 715 (SB 715), which would provide renewable energy credit for power generated by the two waste-to-energy facilities in the County and require them to upgrade to noncombustion processes by 2045.

3.1 Assembly Bill 1126 (AB 1126)

AB 1126 (Gordon), which was signed into law on September 28, 2013, defines the terms "Engineered Municipal Solid Waste (EMSW) conversion" and "EMSW conversion facility." EMSW conversion makes no distinction between combustion and noncombustion processes, and would be classified as disposal, creating no incentive for jurisdictions to send waste to these facilities rather than landfills.

AB 1126 would, however, relax some of the siting requirements for EMSW facilities that would otherwise apply to solid waste disposal facilities. Current law requires all solid waste disposal facilities to be listed in the Countywide Siting Element (CSE) and any amendments to the CSE require approval from the County Board of Supervisors and a majority of the cities in the County with a majority of the population. Under AB 1126, a CSE "providing for" an EMSW facility would only need to be approved by the city or county where the facility is located. This provision would streamline the time consuming and expensive process of amending a CSE to include a new conversion technology facility.

There are some inconsistencies and uncertainties in the definition of "EMSW conversion" as this term is applied to nonincineration conversion technologies. Some of the requirements for "EMSW conversion" do not appear to be applicable to noncombustion processes. For example, the definition of EMSW conversion includes the requirement that municipal solid waste to be converted contain no more than 25 percent "noncombustible waste" and that the facility maximizes the "burn rate of the waste." The bill arbitrarily limits facilities to only being able to process up to 500 tons per day (tpd), which would provide nominal benefit to large jurisdictions and make it more difficult to achieve the economies of scale for a facility to compete with landfill disposal rates.

3.2 Senate Bill 804 (SB 804)

To comply with the Board of Supervisors' September 25, 2012, motion to pursue and support the passage of State and Federal legislation and regulations that would establish a clear pathway to encourage the development of conversion technologies, the County and CSAC cosponsored SB 804. SB 804 was introduced by Senator Lara in February 2013, and received support from technology companies interested in doing business in California as well as jurisdictions in California looking for more ways to manage biomass materials and keep those materials out of landfills.

Current law defines "biomass conversion" as the controlled combustion of organic materials--such as wood, lawn and garden clippings, agricultural crop residue, leaves

and tree pruning, as well as nonrecyclable paper--when separated from other solid waste and used for producing electricity or heat. This bill proposed to add conversion technologies to the definition of biomass conversion, allowing for cleaner and more efficient technologies to be used in the biomass process. This would have created a clear permitting pathway for conversion technologies while providing incentives to divert biomass from landfill disposal.

The progress of SB 804 through the Legislature was due to a concerted effort between the County's legislative advocate, Senator Lara and his staff, and CSAC as well as Public Works staff. The effort involved building support amongst legislators, environmental groups, other jurisdictions, and industry leaders by correcting misconceptions about the scope and intent of the bill.

As the bill worked its way through the committee process, a number of questions arose about conversion technologies and how they compare to traditional combustion and whether or not they should be eligible for renewable energy and diversion credits. These questions lead to extensive discussions with key committee members and their staff, which ultimately resulted in a reduced scope for the bill. After several committee hearings in both the Senate and the House of Representatives, the final version of the bill dealing with biomass was submitted to Governor Brown for signature on September 23, 2013. Unfortunately amendments made to the bill during the double-referral to Assembly Member Alejo's committee on Environmental Safety and Toxic Materials created complex regulatory roles for the California Department of Resources, Recycling and Recovery (CalRecycle) and South Coast Air Quality Management District (SCAQMD), which proved to be very detrimental. Ultimately, CalRecycle was able to convince the Governor that these amendments made the bill unworkable and that CalRecycle should be allowed to develop their own fix for biomass conversion. As a result, on October 11, 2013, Governor Brown vetoed SB 804. In his veto message, the Governor stated that he agrees with the intent of the bill, but that "last minute amendments made the bill overly complicated and unworkable."

However, in the same veto message, Governor Brown directed CalRecycle to work with stakeholders to "develop a sensible approach that would apply to all biomass facilities irrespective of the technologies used." The development of conversion technologies within the County continues to be important for the long term in order to provide alternatives to the export of waste to remote landfills outside of the County. As such, we will continue to participate in the stakeholder process outlined by the Governor in order to pursue the County's adopted legislative priorities.

3.3 Senate Bill 715 (SB 715)

Existing law states that facilities engaged in the combustion of municipal solid waste (waste-to-energy) are not considered a renewable energy resource. Consequently, retail sellers of energy do not receive credit under the Renewable Portfolio Standard program for the procurement of energy from such facilities. In 1999 Assembly

Bill 603 (Cardoza) granted an exception for this classification to waste-to-energy facilities located in Stanislaus County and operational since September 26, 1996.

SB 715 would extend this exception to such facilities located in the County. The bill would additionally require that in order for facilities to maintain this classification, they would need to convert to a noncombustion process by 2045 and divert at least as much waste from landfills as they did prior to conversion of the facility. Two facilities would be affected by the passage of SB 715: the Commerce Refuse-to-Energy Facility located in the City of Commerce and the Southeast Resources Recovery Facility located in the City of Long Beach.

The Board took a support position on SB 715. The bill is currently in the Senate Committee on Energy, Utilities and Communications as a two-year bill. The support is consistent with the County's State Legislative Agenda as well as Supervisor Knabe's September 25, 2012, motion which directed Public Works, in conjunction with the CEO, to work with the Sanitation Districts of Los Angeles County and other stakeholders to "support legislation to provide renewable energy status and to continue to provide diversion credits and other incentives for energy production at existing facilities."

4 Public Outreach

4.1 Legislative Outreach

Public Works, in concert with the CEO legislative advocates and CSAC, conducted general legislative outreach to various public and private stakeholders seeking input on the language of SB 804 as well as requesting support for the bill as it moved through the State Legislature. Key outreach activities included drafting model support letters, sending out updates through the monthly conversion technology e-newsletter, and conducting meetings with key stakeholders and the County's legislative advocates.

4.2 Conversion Technology Survey

In an effort to identify legislative actions, regulatory changes, and incentives that are necessary to facilitate development of conversion technologies in California, Public Works developed and conducted an online survey of stakeholders inviting them to participate and share their knowledge, experience, and concerns through a series of 15 questions. Nearly half of the 66 respondents were project developers. These developers provided a myriad of reasons why their California-based projects have been delayed, aborted, or relocated.

The following are highlights from the survey:

- Over 93 percent of respondents indicated that hurdles to the development of conversion technologies exist in California.

- Over 85 percent of respondents cited thermal technologies as being the most significantly impacted.
- The top four hurdles identified by participants are the following 1) Restrictive California environmental/energy regulations or policies, 2) Uncertainty or ineligibility regarding credits and incentives, 3) Misleading or insufficient information regarding conversion technologies, and 4) Lack of State political support.
- Over 70 percent thought a "Conversion Technology Center" was a good idea, indicating that the most helpful elements would be "political support and assistance in project development" and "assistance with navigating permitting, environmental review, etc."

It is clear that legislative, political, and regulatory support at the State level is a make-or-break condition for the successful development conversion technology facilities in California. This is corroborated by survey responses indicating a lack of support from California officials and agencies as well as by out-of-state projects that benefited from supportive regulations and clear pathways to permitting. There is also an interest in the development of an online Conversion Technology Center, especially if it can help smooth the road through the State hurdles and other permitting and review processes.

Despite the deep concerns about hurdles and obstacles to the development of conversion technologies in California, there were also positive comments. The underlying tone of the responses showed not defeatism but a real desire to find a way to make conversion technologies an integrated part of California's vision with regard to waste management.

5 Request for Expressions of Interest Second Solicitation

Public Works issued its second Request for Expressions of Interest (RFEI) solicitation on June 13, 2013. Similar to the RFEI solicitation in 2011, the second RFEI sought information on conversion technologies that are available in the U.S. market and would be available for application for one or more projects in the County of Los Angeles. Through this RFEI, Public Works requested from conversion technology providers and/or project developers representing conversion technology providers, information on their technology as well as qualifications and resources of their company. Public Works also issued an RFEI for financial service firms that are in the business of assisting in the structuring and financing of conversion technology projects. Public Works received responses on August 30, 3013, from the following firms:

<u>New Companies Providing Responses</u>

Abengoa Bioenergy
AdaptiveARC
American Waste to Energy
Anaergia
Axpo Kompogas

Bharco Ecotechnologies
BIOFerm
Biogas Equity 2
Covanta Energy
EcoCorp
Eisenmann
Envision Waste Services
Himark Biogas
IneosBio
JFE
Lystek
Powerhouse Energy
Scott Equipment
Sierra Bioenergy

Listed Companies Providing Updates or Supplemental Information

Backstrom McCarlety Berry & Co *(financial)*
Government Financial Strategies Inc. *(financial)*
Morgan Stanley *((financial)*
William Blair & Co *(financial)*

AlterNRG
Arrow Ecology
Organic Waste Systems
Orgaworld
Renewable Energy Management
Valorga/Energos
Waste to Energy LLC

Following review by Public Works, company information provided by respondents will be included in the database on our website. The database is used by the County and by public and private project developers participating in the County's conversion technology program as an informational tool in the development of conversion technology projects. The database allows the County and other project stakeholders to initially identify and assess technologies that are ready for commercial application and that may be suited to their project-specific goals and objectives. The database is intended to encourage partnerships for the development of commercial projects.

6 Grant Opportunities

Public Works regularly researches potential State and Federal grant opportunities that the County's Conversion Technology Program could apply for. A grant would offset operation costs and enable the County to provide additional resources to stakeholders, potentially spurring project development in the region.

As discussed in the previous report, Public Works applied for funding from the California Energy Commission (CEC) for a Conversion Technology Center in February 2012. Public Works was not awarded a grant; however, the CEC indicated that a grant solicitation would be issued in 2013 that focused on resource and education centers. Unfortunately, the Centers for Alternative Fuels and Advanced Vehicle Technology grant solicitation released by the CEC on August 23, 2013, is focused almost exclusively on advanced vehicle testing and fleet conversion, with very little emphasis on alternative fuel production. Public Works will continue to have discussions with the CEC about creating additional grant solicitations under the umbrella of the Assembly Bill 118 Alternative Vehicle Technology program or other appropriate grant funding sources specifically for resource centers such as the one proposed by Public Works, as well as to support the development of on-the-ground conversion technology projects, such as the CR&R Incorporated (CR&R) project described in the next section.

7 Update on Phase III Demonstration Projects

On April 20, 2010, the Board approved memoranda of understanding with CR&R, Rainbow Disposal Company (Rainbow), and International Environmental Solutions (IES). As described in the previous report, due to economic and financial constraints, the projects proposed by Rainbow and IES are indefinitely on hold; however, CR&R's project continues to make significant progress towards development.

7.1 CR&R Incorporated

CR&R, a local solid waste management company, is developing the 150 tpd Anaerobic Digestion project at their Perris Materials Recovery Facility (MRF) and Transfer Station (TS). Public Works actively assisted CR&R in pursuing funding for the facility, and the company was awarded a grant of more than $4.5 million from the CEC in January 2011. Since that time, the City of Perris approved the facility's Conditional Use Permit and Mitigated Negative Declaration, as required by the California Environmental Quality Act, indicating the project will have no significant impacts on the environment. CR&R is working closely with CalRecycle and SCAQMD on their solid waste facility permit and air quality permit, respectively. The project has also been successful in obtaining two additional grants from the CEC and SCAQMD to pay for a portion of the renewable natural gas (RNG) fueling station that will be located onsite for fueling the company's hauling fleet.

Public Works continues to monitor the development progress of CR&R's anaerobic digestion project at their MRF in Riverside County. The project's digester supplier is Eisenmann and Greenlane is providing their gas upgrade. CR&R is waiting on the finalization of their air permits prior to breaking ground. They anticipate this taking place in the next few months. Their RNG fuelling station has been installed and will supply RNG to their hauling fleet when the digester comes online.

8 Update on Phase IV Commercial Projects

This report provides updates on sites that have made significant progress towards development since April 2013.

8.1 Scholl Canyon Landfill, City of Glendale

The City is moving forward with plans to develop an anaerobic digestion conversion technology project at the Scholl Canyon Landfill. The landfill is located in the City of Glendale on property owned jointly by the City (90 percent) and the County (10 percent) and is operated by the County Sanitation Districts (CSD). The City has received proposals for a project and is currently reviewing them with the help of a technical review committee. Both Public Works and CSD are represented on that committee.

8.2 Lancaster Landfill, Waste Management, Inc.

On July 10, 2013, Waste Management, Inc., (WM) issued an Invitation-Only Request for Proposals (RFP) for a green waste and food waste processing facility, on designated land within the boundaries of WM's Lancaster Landfill located in the unincorporated region of the County near the City of Lancaster. Per the RFP, the facility will have the capability to process material by composting and by an alternative technology, such as anaerobic digestion or other method that qualifies for beneficial use under Assembly Bill 939 and related regulations. The facility will process up to 2,000 tpd of green waste and food waste, of which between 250 and 400 tpd will be processed by the alternative technology.

8.3 Joint Water Pollution Control Plant, CSD/WM

Located in the City of Carson, the Joint Water Pollution Control Plant is owned and operated by CSD. This location was proposed by the City of Carson as a potential location for a conversion technology facility in 2010 when Public Works issued an invitation to site owners and operators to participate in the County's program. Since that time, CSD and WM have partnered together to roll out a food waste digestion project at the site. The project will begin as a pilot project utilizing CSD's existing waste water treatment digesters and 84 tpd of preconsumer food waste supplied by WM. Following a 2- to 3-year demonstration period, CSD and WM will determine if a continued partnership will be pursued.

8.4 Waste Resources Recovery MRF in Gardena, Waste Resources, Inc.

Waste Resources Inc., a solid waste hauler in the County of Los Angeles, is in the process of obtaining permits that would enable them to demonstrate an autoclave, a mechanical conversion technology system, at their MRF/TS in an unincorporated area near Gardena. This site has the advantage of being co-located with an existing MRF/TS facility and can thus make use of the existing infrastructure and processing capability. The site is of sufficient size, is zoned industrial, fully serviced with utilities, is

surrounded by other industrial uses, and is located in a County unincorporated area. The site also has very good truck access. Autoclave technology uses high temperature steam to sterilize and break down the waste, which allows for the separation of clean recyclables and leaves behind the organic fraction of the waste that can be used for anaerobic digestion.

8.5 Pebbly Beach Landfill, City of Avalon

Last year, at the request of the City of Avalon, Public Works prepared a conversion technology assessment that considered multiple options for a conversion technology facility to be located at the Pebbly Beach Landfill on the Island of Catalina. The assessment took into account the solid waste management system on the island and the economic constraints. Several conversion technology company sponsors were identified through the Public Works' technology database that could provide small scale conversion systems in the capacity range required by the City for processing postrecycled municipal solid waste (MSW), biosolids, green waste/food waste, and possibly other materials, such as restaurant grease. These representative technology company sponsors have expressed interest in working with the City. In the meantime, the City released an RFP for residential and commercial waste collection, operation of the MRF, hazardous waste collection facility, and landfill. The City selected CR&R to provide these services and is considering developing a specific RFP for a small thermal conversion technology facility at the landfill to process residual waste and generate fuel.

9 Next Steps

Over the next six months, Public Works will actively engage on multiple fronts to implement the Board's directives to advance conversion technology legislation in the State and create a clear pathway for their development. Among these efforts, Public Works will:

- Work with nationally recognized environmental groups to develop a white paper on "highest and best use" purposing for the most prevalent materials in the County's waste stream.
- Continue to participate in the stakeholder process for Statewide solid waste plans currently being developed by CalRecycle and the California Air Resources Board, including the Assembly Bill 32 Scoping Plan Update and Assembly Bill 341 regulations.
- As appropriate, work with the County's legislative advocates to support legislation that would promote continued opportunities and resources for the development of conversion technologies in California.
- Per the Governor's instruction, work with CalRecycle, legislative staff, and other State agencies and stakeholders to develop a technology neutral approach to permitting and incentivizing conversion technologies.
- Continue to monitor State and Federal funding opportunities for a potential Conversion Technology Center.

- Continue to research potential State and Federal grant opportunities that support the development of conversion technologies.
- Conduct planning efforts as appropriate for Los Angeles County-based projects as well as monitor the CR&R project.
- Continue to review RFEI submittals and update the online database.

P:\Sec\EP-4\Attachment CT 6 month review

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

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GAIL FARBER, Director

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IN REPLY PLEASE
REFER TO FILE: EP-4
A3454-7

May 12, 2014

TO: Each Supervisor

FROM: Gail Farber
Director of Public Works

BOARD MOTION OF APRIL 20, 2010, ITEM NO. 44
CONVERSION TECHNOLOGIES IN THE COUNTY OF LOS ANGELES
SIX-MONTH STATUS UPDATE: OCTOBER 2013 THROUGH APRIL 2014

On April 20, 2010, the Board approved Memoranda of Understanding for three conversion technology demonstration projects and awarded a contract for consultant services to assist Public Works in developing innovative alternatives to landfills within the County. Since that time, Public Works has provided the Board with a biannual update, highlighting program milestones and notable legislative and regulatory advancements. The attached update provides a summary for October 2013 through April 2014.

Program highlights since the last report in October 2013 include the following:

- In partnership with Senator Ricardo Lara and the California State Association of Counties, introduced biomass conversion legislation Senate Bill 498. The bill would add noncombustion thermal conversion technologies to the definition of biomass conversion, creating a clear permitting pathway for these technologies while providing incentives to divert biomass from landfill disposal. The bill has passed through the State Senate and is awaiting committee assignment in the State Assembly.

- Staff continued to monitor funding opportunities for conversion technologies from State and Federal sources. As part of this effort, we provided extensive feedback on legislative actions, regulatory changes,

and incentives being proposed by CalRecycle in Governor Brown's new budget.

- Completed updates to the Conversion Technology Online Vendor Database. The database now includes nearly 60 technology listings and is available to the public on the Department's SoCalConversion.org website. This Database was developed to assist Public Works in facilitating partnerships between conversion technology vendors and project developers and accelerate the development of commercial-scale conversion technology projects in the County.

- Developed a White Paper evaluating and comparing the environmental impacts of traditional landfilling with an integrated conversion technology facility. The purpose of this White Paper is to quantify the environmental benefits of conversion technologies in comparison to landfilling. This paper will be an important tool in educating decision makers regarding the benefits of conversion technologies. The analysis is ongoing and the paper will undergo peer review and release later this year.

- Continued providing technical and planning services and information to potential conversion technology projects located in the County, as summarized in the attached status update.

Public Works will continue to work with stakeholders to move forward with project development activities at sites within the County. Our next status report will be submitted to the Board in October 2014.

TM:dy
P:\Sec\EP-4\CT 6 month report cover memo April 2014

Attach.

cc: Chief Executive Office (Rita Robinson)
County Counsel
Executive Office
Department of Public Health
Department of Regional Planning
Los Angeles County Integrated Waste Management Task Force
Regional Planning Commission
Sanitation Districts of Los Angeles County

County of Los Angeles Department of Public Works

Conversion Technology Program Six-Month Status Update

October 2013 through April 2014

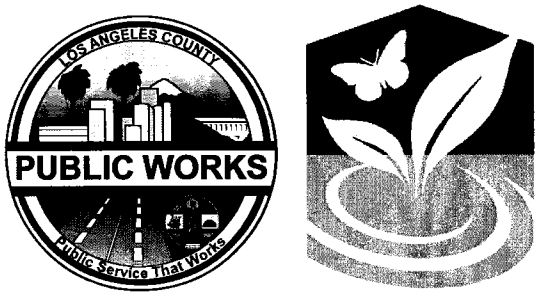

Table of Contents

1 Introduction

On April 20, 2010, the County of Los Angeles Board of Supervisors unanimously approved three Memoranda of Understanding to develop demonstration conversion technology projects as part of the Southern California Conversion Technology Program. The purpose of the program is to encourage the development of conversion technologies as alternatives to landfills for the management of residual solid waste in the County. The Board also awarded a contract for consultant services for the program's demonstration and commercial phases and approved a motion instructing the Director of the County of Los Angeles Department of Public Works, in coordination with appropriate stakeholders, to assess the feasibility of developing a conversion technology facility at one or more County landfills and to identify other potential facility sites within the County. The motion further directed Public Works to report to the Board in six months with its findings.

In October 2010, Public Works submitted a Preliminary Siting Assessment to the Board identifying potential project sites proposed by 11 municipalities and 9 private companies and committed to providing the Board with a status report on our efforts every six months. Since that time, Public Works has worked with interested stakeholders to evaluate additional possible project locations within the County.

Subsequently, on September 25, 2012, the Board approved a motion by Supervisor Don Knabe directing Public Works, in conjunction with the Chief Executive Office (CEO), to work with key stakeholders to pursue and support the passage of legislation and regulations to encourage development of conversion technologies, including appropriate incentives for producing renewable energy, reducing landfill disposal, and producing low-carbon fuels.

This report provides a summary of key actions and accomplishments by Public Works, in concert with the CEO and the County's legislative advocates in Sacramento, in response to the above Board actions, for the period of October 2013 to April 2014. Most significant among those actions and accomplishments is legislative activity centered around Senate Bill 498 (SB 498), cosponsored by the County and the California State Association of Counties (CSAC) and authored by Senator Ricardo Lara, as discussed in Section 3 below.

2 Project Background

For over a decade, Public Works has evaluated and promoted the development of conversion technology facilities as an alternative to landfilling of solid waste. In addition to diverting solid waste from landfill disposal, such facilities produce renewable energy (electricity, gaseous, or liquid fuels), reduce environmental impacts, and create local green-collar jobs. Together with technical and public outreach consultants, and the Alternative Technology Advisory Subcommittee of the Los Angeles

County Integrated Waste Management Task Force, Public Works has vetted various noncombustion thermal, biological, chemical, and mechanical conversion technologies, assessed potential project sites, worked with local and State agencies to create a permitting pathway for the technologies, and created a Countywide public outreach plan to educate stakeholders about the benefit of these technologies.

One of the most significant barriers to the development of conversion technologies in California has been inconsistent definitions and other provisions in State laws and regulations, which inhibit the development of conversion technologies. To address this issue, on September 25, 2012, the Board approved a motion directing Public Works, in conjunction with the CEO, to work with the County Sanitation Districts of Los Angeles County (CSD) and other key stakeholders to:

- Actively pursue and support the passage of State and Federal legislation and regulations that would establish a clear pathway to encourage the development of conversion technologies, including clarification of the definition of conversion technologies and ensuring they qualify for appropriate incentives for producing renewable energy, reducing landfill disposal, and producing low-carbon fuels.
- Support legislation to provide renewable energy status and to continue to provide diversion credits and other incentives for energy production at existing facilities in the County that generate energy from waste.
- Outreach to State agencies and other stakeholders to share information on the technical performance and multifaceted benefits of conversion technologies, such as their role in meeting the solid waste management needs of local jurisdictions, producing green fuels, and reducing greenhouse gas emissions.
- Work with conversion technology companies to identify potential regulatory changes that are necessary to streamline the permitting process to allow conversion technology facilities to flourish in California while complying with California's strict environmental standards.

3 Conversion Technology Legislation

During the 2013-14 California Legislative Session SB 498, relating to solid waste conversion technologies, was amended in the State Legislature. SB 498, authored by Senator Ricardo Lara, proposes to revise the definition of the term "biomass conversion" to include noncombustion conversion technologies.

3.1 Senate Bill 498 (SB 498)

Senate Bill 498, formerly a green chemistry bill, was revised by Senator Ricardo Lara as a second attempt at passing a conversion technology bill similar to Senate Bill 804 (SB 804), which was vetoed by Governor Brown in late 2013. Governor Brown indicated that while he agreed with the intent of the bill, he found some of the language to be unworkable. The language in SB 498 was developed by the County and the

CSAC following meetings with the California Department of Resources Recycling and Recovery (CalRecycle) and key Sacramento stakeholders, with Governor Brown's SB 804 veto message in mind.

Current law defines "biomass conversion" as the controlled combustion of organic materials, such as wood, lawn and garden clippings, agricultural waste, leaves, tree pruning, and nonrecyclable paper, when separated from other solid waste and used for producing electricity or heat. SB 498 adds "conversion technologies" to the definition of "biomass conversion," allowing for cleaner and more efficient noncombustion thermal technologies to be used to convert biomass into fuels and products in addition to heat and/or electricity.

This bill was supported by many stakeholders, including the City of Torrance, City of Vernon, County of Santa Barbara, County of Ventura, Rural County Representatives of California, Anaergia Services, and JFE Engineering America, Inc. As a result, SB 498 passed out of the Senate by a vote of 34 to 0 on January 28, 2014. The bill is currently awaiting committee assignment in the Assembly.

4 Public Outreach

Public Works, in consultation with the County's legislative advocates, has conducted legislative outreach to various public and private stakeholders seeking input on SB 498's language as well as requesting support for the bill as it moved through the State Legislature. Key outreach activities included drafting model support letters, sending out updates through the monthly conversion technology e-newsletter and conducting meetings with key stakeholders and the County's legislative advocates. To date this legislative outreach activity has been successful in helping the County's sponsored legislation to move forward.

5 Conversion Technology Online Vendor Database

Public Works completed updates to the Conversion Technology Online Vendor Database, which includes nearly 60 technology listings (see Table 1 on next page) and is available for public use at www.SoCalConversion.org. Future plans are to expand the database to include pre- and post-processing technologies (e.g., sorting/separation systems, waste-to-fuel technologies, fuel cells and other power generation equipment, gas clean-up equipment, and other systems relevant to a complete conversion technology facility). Public Works has received positive feedback from municipalities and companies alike regarding the value of this database in fostering potential development partnerships for conversion technology projects.

Table 1: Conversion Technology Vendor Database Listings

Abengoa Bioenergy	Interstate Waste Technologies, Inc.
AdaptiveARC Inc.	JFE Engineering Corporation
Alter NRG Corp. American Waste to Energy, LLC	Lystek International, Inc. MaxWest Environmental Systems, Inc.
Anaergia	Mustang Renewable Power Ventures, LLC
Arrow Ecology and Engineering Overseas, Ltd.	NRG Energy, Inc.
Axpo Kompogas AG	Organic Waste Systems
Bharco Ecotechnologies, LLC	Orgaworld International (West AD)
BIOFerm Energy Systems	Orgaworld International BV (Dry AD BIOCEL)
Biogas Energy, Inc.	Orgaworld International BV (MBT OMRIN)
BIOGAS Equity 2, Inc.	Plasco Energy Group
BioGold Fuels Corporation	PowerHouse Energy, LLC
CBES Global, LLC	Princeton Environmental Group
CCI Bioenergy Inc.	Pryogenesis
Clean World Partners	ReCycled Refuse (RCR) International, Ltd.
Covanta Energy Corporation	Renewable Energy Management, Inc.
CR&R Incorporated	Resource Energy Development, Inc.
EcoCorp	Ros Roca Envirotec
EcoTech Fuels, LLC	Sierra Energy
Eisenmann	Entec biogas USA
Energos and Urbaser	Taylor Biomass Energy, LLC
Envirepel Energy, Inc.	Technip USA, Inc.
Environmental Energy Resources Ltd.	Terrabon and Waste Management of California
Envision Waste Services, LLC	Urbaser
Harvest Power, Inc.	Waste to Energy, LLC
Himark Biogas, Inc. INEOS Bio USA, LLC	WSI to Energy, LLC
Innovative Energy Solutions, Inc.	Zero Waste Energy
International Environment Solutions (IES)	

6 Grant Opportunities

Public Works continually researches State and Federal grant opportunities to support and advance the County's Conversion Technology Program. Grants would offset facility development and/or operational costs, provide additional resources, and potentially spur project development in the region.

On January 9, 2014, the Governor's draft budget was released indicating how $850 million in cap-and-trade revenues would be spent. CalRecycle has received 3.5 percent of that allotment to implement the 2014-15 Proposed CalRecycle Greenhouse Gas Reduction Grant & Loan Programs. These programs will provide $30 million in financial incentives for capital investments that expand the waste management infrastructure in order to reduce greenhouse gas emissions.

Under the proposed budget, CalRecycle would administer competitive grants and loans to promote infrastructure development for facilities in California that divert more materials from landfills, thereby achieving greenhouse gas emissions reductions. Grants and loans would be targeted to build or expand organics infrastructure, such as composting and anaerobic digestion or reduce food waste in California. This program targets other activities, including new or expanded infrastructure for manufacturing products with recycled content fiber, plastic, or glass.

Public Works provided the following comments to CalRecycle regarding the proposed budget:

- Consider projects earlier in the development process. The proposal currently limits applications to "shovel-ready" projects that are already permitted and have completed their California Environmental Quality Act process, which appears to favor projects that were already planned to be built, rather than those that need grant funding in order to get off the ground.
- The organics solicitation is exclusively limited to anaerobic digestion and composting. Although anaerobic digestion is at present more widely used than other processes to convert organic waste to energy, biomass gasification and other conversion technologies may provide equal or greater greenhouse gas emissions reductions, which must be the primary emphasis of this program. Public Works encourages grant criteria to be technology neutral.
- Most of the anaerobic digestion developments take place in Northern California cities. To ensure a fair geographic allocation of grant funds, there needs to be an equitable distribution of funds throughout California. A competitive grant process without regional consideration may continue to support this cluster growth in the State.

- It is important for the grants and loans program to retain funding that supports local remanufacturing. Public Works supports remanufacturing and market development for recycled materials/end-products in California, given that only 2 million tons of recyclables are remanufactured in-State and 22 million tons are exported for remanufacturing.

7 Update on Project Development

Public Works continues to monitor project development in the Southern California region. Below is a summary of select projects that made significant progress during the October 2013 through April 2014 period:

7.1 Perris Materials Recovery Facility, CR&R Incorporated

CR&R Waste and Recycling Services, a local solid waste management company, is developing the 150 ton per day anaerobic digestion project at their Perris Materials Recovery Facility and Transfer Station. The project's digester supplier, Eisenmann and Greenlane, is providing their gas upgrade.

Public Works actively assisted CR&R in pursuing funding for the facility. In March 2014, Public Works sent a letter of support to the California Energy Commission on behalf of CR&R requesting supplemental grant funding for the project. In January 2011, the company received $4.5 million through the Assembly Bill 118 alternative fuel vehicle program. The project has also been successful in obtaining two additional grants from the California Energy Commission and South Coast Air Quality Management District to pay for a portion of the renewable natural gas fueling station that will be located onsite for fueling the company's hauling fleet.

On February 25, 2014, the Costa Mesa Sanitary District Board of Directors approved a six-year "evergreen" contract (i.e., automatically renewed at the end of that period) with CR&R. Green waste and food waste from Costa Mesa residents will be sent to the facility once it is complete. The City's organics program is estimated to cost about $500,000 a year. While customer rates have not been determined, district officials have approximately a $4 million reserve fund to pay for the program initially and may choose to implement small and gradual rate hikes to cover the costs.

7.2 Joint Water Pollution Control Plant, County Sanitation District/Waste Management

Located in the City of Carson, the Joint Water Pollution Control Plant is owned and operated by CSD. This location was proposed by the City of Carson as a potential location for a conversion technology facility in 2010 when Public Works issued an invitation to site owners and operators to participate in the County's program. Since that time, CSD and Waste Management have partnered to roll out a food waste digestion project at the site. The project began as a pilot project utilizing CSD's existing

wastewater treatment digesters and 84 tons per day (tpd) of preconsumer food waste supplied by Waste Management. Following a 2- to 3-year demonstration period, CSD and Waste Management will determine if a continued partnership will be pursued.

7.3 Pebbly Beach Landfill, City of Avalon

The City of Avalon has yet to make a decision regarding the development of a Request for Proposal for a small conversion technology facility at the Pebbly Beach Landfill on the Island of Catalina. Public Works remains interested and available to assist Avalon in securing necessary grant funding for a project or conducting additional feasibility assessments, depending on the City's goals and objectives.

7.4 Lancaster Landfill, Waste Management, Inc.

Condition 101 of Conditional Use Permit 03-170 (5) for the Waste Management owned Lancaster Landfill provides for the development of a conversion technology facility by Waste Management at the Lancaster Landfill.

On July 10, 2013, Waste Management issued an Invitation-Only Request for Proposals for a green waste and food waste processing facility on designated land within the boundaries of Waste Management's Lancaster Landfill located in the unincorporated region of the County near the City of Lancaster. Waste Management has yet to make a decision on this project.

7.5 South Gate MRF, Interior Removal Specialists (IRS Demo)

Over the past six months, Public Works has met with IRS Demo to identify grant funding to assist in the development of a small-scale thermal conversion technology unit at their construction and demolition recycling facility in South Gate. Public Works has coordinated initial discussions between IRS Demo and several technology vendors listed in the Conversion Technology Online Vendor Database. IRS Demo is currently continuing to evaluate their options and objectives for a project before applying for grant funding.

7.6 Grand Central Recycling and Transfer Station, Valley Vista Services

Grand Central Recycling and Transfer Station is located in the City of Industry and is owned by Valley Vista Services, a solid waste hauler in the County of Los Angeles. Over the past year, Valley Vista Services has continued to optimize their 600 tpd mixed waste Material Recovery Facility for organic feedstock preparation. Onsite Power is the licensee of the UC Davis anaerobic digestion process and has proposed to build a conversion technology project on approximately four acres available at the site. The

current focus is on developing a new green waste chipping, grinding, and composting operation. This new facility can provide both feedstock for the proposed anaerobic digestion system and also receive and compost the digestate that comes out of the anaerobic digestion process. The anaerobic digestion portion of the project is still in their future plans but will not be in immediate development.

7.7 Paramount Resource Recycling and Recovery Facility, Calmet Services

Calmet Services, a solid waste hauler in the County of Los Angeles, is currently focused on the permitting and development of the Royal Recycling and Transfer Station facility located in Paramount, California. However, they continue to evaluate the feasibility of anaerobic digestion at their existing Paramount Resource Recycling Facility (Paramount Facility). Royal Recycling and the Paramount Facility are located adjacent to each other and the successful development of the former will provide space within the Paramount Facility campus for the future anaerobic digestion plant. Development of such a project is still likely a few years away while the site continues to make smaller upgrades to comply with new regulations, including making stormwater management improvements. Additionally, Calmet Services would be open to potentially partnering with one of the preferred technologies from the Conversion Technology Online Vendor Database in the future.

7.8 Gardena Material Recovery Facility/Transfer Station, Waste Recovery & Recycling

Waste Resources Inc., a solid waste hauler in the County of Los Angeles, is in the process of obtaining permits that would enable them to demonstrate an autoclave, a mechanical conversion technology system, at their existing Material Recovery Facility and Transfer Station in an unincorporated area near Gardena. Installation of the autoclave is expected by August 2014. It is anticipated that the facility will be operational for demonstrations and permitting purposes by September 2014. Autoclave technology uses high-temperature steam to sterilize and break down the waste, which allows for the separation of clean recyclables and leaves behind the organic fraction of the waste that can be used for anaerobic digestion. The site has the advantage of being co-located with an existing material recovery facility and transfer station facility and can thus make use of the existing infrastructure and processing capability. Once the autoclave is installed and operational, the company will assess the performance and the resultant organic product stream for use in a future back-end conversion technology project.

7.9 City Terrace Material Recovery Facility, Southland Disposal

Southland Disposal is currently in the process of obtaining a Conditional Use Permit for the City Terrace Material Recovery Facility and Transfer Station to increase the amount

of material received from 700 to 1,500 tpd. When the application was initially submitted in January 2012, the project description contained a small anaerobic digestion facility (15-20 tpd). However, this component of the project has been put on hold due to space limitations as well as the complexity of the permitting effort. A revised project description was submitted in September 2012. Once they have accomplished their primary goal of material recovery facility expansion, it is expected that they will reconsider the conversion technology component at the City Terrace Material Recovery Facility.

7.10 Lopez Canyon, Mustang Power

Mustang Power, a conversion technology development company and the selected vendor in Santa Barbara County, has proposed a 36-acre site that it owns for a project. The site is available and is located near the Lopez Canyon Landfill in Unincorporated Los Angeles County. The site is currently being used for storage and as a trailer park. Project planning and development activities could begin in the near term. However, the identification of waste commitments is needed for a project at this location. Mustang Power is meeting with County staff to continue discussions regarding a number of potential opportunities. Mustang Power indicated that they have the time, capacity, and interest to develop a project in Los Angeles County. Additionally, they have been working on other opportunities outside the State, in the Northeast and Canada.

7.11 Green City Development

Green City Development, Inc., (Green City) has previously proposed two sites for the development of a project. One site is in the City of Santa Clarita and one is in Lopez Canyon. Green City is still very interested in developing a project at one of these sites, but does not currently have a technology vendor. The Conversion Technology Online Vendor Database on the County's website was discussed as a means of helping to identify a vendor that may be a good match for the site.

The Santa Clarita property is a former oil drilling site that occupies a total of 115-acres. This brownfield site is accessible from the I-210, SR-14, and I-5 freeways and is not within close proximity to residential neighborhoods. The property owner had been discussing potential project options with a technology vendor for the site. However, the vendor's financing has fallen through and the site is still available.

The second site is a 40-acre parcel of land in Lopez Canyon. Green City's primary concern with this site is the current zoning. The site is zoned A-2, Heavy Agriculture, so a Conditional Use Permit and possibly a zone variance would be required to develop a material recovery facility and conversion technology project on the property. Green City is interested in having the site rezoned as M-2 to facilitate a project.

7.12 Pacific Coast Waste & Recycling

Pacific Coast Waste & Recycling partnered with Organic Energy Corporation to form Ecolution. Ecolution was proposing a two-phase, 4,000 ton per day material recovery facility and conversion technology facility in the City of Lancaster. According to Mr. Tim Fuller, the president of Ecolution, the material recovery facility is not ready to move forward. The company came to this conclusion since it was unable to obtain sufficient waste supply agreements to make it profitable. Ecolution is currently focused on developing a project in Texas. The Lancaster project has been removed from the list of potential conversion technology projects.

8 Integrated Conversion Technology Facility White Paper

Public Works is developing a White Paper designed to provide policy makers with information regarding the relative impact of managing residual solid waste via traditional landfill disposal compared to an integrated conversion technology facility. The White Paper includes a high-level analysis of the greenhouse gas and other environmental impacts relating to the transport of waste for landfill disposal, in comparison to managing the residual solid waste onsite using anaerobic digestion and gasification. The preliminary results show that there are significant net environmental benefits to managing waste through an integrated conversion technology facility approach. The White Paper will undergo peer review and Public Works hopes to release it later this year.

9 Next Steps

Over the next six months, in concert with the County's legislative advocates and other stakeholders, Public Works will actively engage on multiple fronts to implement the Board's directives to advance conversion technology legislation in the State and create a clear pathway for their development. Among these efforts, Public Works will:

- Continue to participate in the stakeholder process for Statewide solid waste plans currently being developed by CalRecycle and the California Air Resources Board.
- As appropriate, work with the County's legislative advocates to support SB 498 and other legislation that would promote continued opportunities and resources for the development of conversion technologies in California.
- Continue to research potential State and Federal grant opportunities that support the development of conversion technologies.
- Conduct planning efforts as appropriate for the County-based projects as well as monitor the CR&R project.
- Expand the online databases to include pre- and post-processing technologies.

- Finalize/publicize the Integrated Conversion Technology Facility White Paper.
- Continue to work with stakeholders interested in developing projects in the County.
- Release the Request for Proposal for conversion technology technical services contract. The current 4-year contract with Alternative Resource Inc., will sunset on May 13, 2014.

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

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IN REPLY PLEASE
REFER TO FILE: EP-4
A3454-8F

October 22, 2014

TO: Each Supervisor

FROM: Gail Farber
Director of Public Works

BOARD MOTION OF APRIL 20, 2010, ITEM 44
CONVERSION TECHNOLOGIES IN THE COUNTY OF LOS ANGELES
SIX-MONTH STATUS UPDATE: MAY THROUGH OCTOBER 2014

On April 20, 2010, the Board approved Memoranda of Understanding for three conversion technology demonstration projects and awarded a contract for consultant services to assist the Department of Public Works in developing innovative alternatives to landfills within the County. Since that time, Public Works has provided the Board with a biannual update highlighting program milestones and notable legislative and regulatory advancements. The attached update provides a summary for May through October 2014.

Program highlights since the last report in April 2014 include the following:

- The County in partnership with the California State Association of Counties sponsored Senate Bill 498, a biomass conversion technology bill introduced by Senator Ricardo Lara. Thanks to the efforts of Senator Lara, the County's legislative advocates, and numerous supporters, the bill passed both houses of the State Legislature and was signed by Governor Edmund G. Brown on September 28, 2014. Senate Bill 498 will add noncombustion thermal conversion technologies to the definition of biomass conversion, creating a clear permitting pathway for these technologies while providing incentives to divert biomass from landfill disposal.

- Released a Request for Proposals for the Advanced Solid Waste Conversion Technology Services contract. The purpose of this contract is to assist project developers, including the County of Los Angeles, in developing one or more conversion technology projects in the County. This contract would consist of two key components. The first component would focus on stakeholder resources and education while the second component would focus on the planning needed to successfully develop projects in the County. The contract will be submitted to the Board for consideration by the end of the year.

- Continued to monitor funding opportunities for conversion technologies from State and Federal sources. As part of this effort, Public Works coordinated with the County's legislative advocates to provide extensive feedback on proposed legislative and regulatory actions and incentives proposed by CalRecycle in Governor Brown's budget.

- Continued development of the draft Conversion Technology White Paper, which evaluates and compares the environmental impacts of a typical solid waste landfill with an integrated conversion technology facility. The purpose of this White Paper is to quantify the environmental benefits of conversion technologies in comparison to landfilling. This paper will be an important tool in educating decision makers regarding the benefits of conversion technologies. The comments from the peer reviews are being incorporated into the White Paper by the technical consultant, and the finalized document will be reviewed by Public Works before it is released to the public.

- Continued providing technical and planning support and information to the developers of the potential conversion technology projects located in the County as summarized in the attached status update.

- CR&R Waste and Recycling Services broke ground on their anaerobic digestion facility at their material recovery facility and transfer station in Perris, California. Public Works actively assisted CR&R in obtaining funding for the project as well as providing technical assistance to the developers.

- As directed by the Board, Public Works, in collaboration with other departments, developed a Sustainable Waste Management Future Roadmap. The Roadmap was adopted by the Board on October 21, 2014. Conversion technologies are one component of the long-term strategy to meet the disposal reduction targets identified in the Roadmap.

Public Works will continue to support conversion technologies as described in the attached status update. Subsequent conversion technology updates will be submitted to the Board as part of the Roadmap status reports.

CS:dy
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Attach.

cc: Chief Executive Office (Rita Robinson)
County Counsel
Executive Office
Department of Public Health
Department of Regional Planning
Los Angeles County Integrated Waste Management Task Force
Regional Planning Commission
Sanitation Districts of Los Angeles County

County of Los Angeles Department of Public Works

Conversion Technology Program Six-Month Status Update

May 2014 through October 2014

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1 Introduction

On April 20, 2010, the County of Los Angeles Board of Supervisors unanimously approved three Memoranda of Understanding to develop demonstration conversion technology projects as part of the Southern California Conversion Technology Program. The purpose of the program is to encourage the development of conversion technologies as alternatives to landfills for the management of residual solid waste in the County. The Board also awarded a contract for consultant services for the program's demonstration and commercial phases and approved a motion instructing the Director of the County of Los Angeles Department of Public Works, in coordination with appropriate stakeholders, to assess the feasibility of developing a conversion technology facility at one or more County landfills and to identify other potential facility sites within the County. The motion further directed Public Works to report to the Board in six months with its findings.

In October 2010 Public Works submitted a Preliminary Siting Assessment to the Board identifying potential project sites proposed by 11 municipalities and 9 private companies and committed to providing the Board with a status report on our efforts every six months. Since that time, Public Works has worked with interested stakeholders to evaluate additional possible project locations within the County.

Subsequently, on September 25, 2012, the Board approved a motion by Supervisor Don Knabe directing Public Works, in conjunction with the Chief Executive Office (CEO), to work with key stakeholders to pursue and support the passage of legislation and regulations to encourage development of conversion technologies, including appropriate incentives for producing renewable energy, reducing landfill disposal, and producing low-carbon fuels.

This report provides a summary of key actions and accomplishments by Public Works, in concert with the CEO and the County's legislative advocates in Sacramento, in response to the above Board actions, for the period of May 2014 through October 2014. Most significant among those actions and accomplishments is continued legislative activity centered around the passage of Senate Bill 498 (SB 498), cosponsored by the County and the California State Association of Counties (CSAC) and authored by Senator Ricardo Lara, as discussed in Section 3 below.

2 Project Background

For over a decade, Public Works has evaluated and promoted the development of conversion technology facilities as an alternative to landfilling of solid waste. In addition to diverting solid waste from landfill disposal, such facilities produce renewable energy (electricity, gaseous, or liquid fuels), reduce environmental impacts, and create local green-collar jobs. Together with technical and public outreach

consultants, and the Alternative Technology Advisory Subcommittee of the Los Angeles County Integrated Waste Management Task Force, Public Works has vetted various noncombustion thermal, biological, chemical, and mechanical conversion technologies; assessed potential project sites; worked with local and State agencies to create a permitting pathway for the technologies; and created a Countywide public outreach plan to educate stakeholders about the benefit of these technologies.

One of the most significant barriers to the development of conversion technologies in California has been inconsistent definitions and other provisions in State laws and regulations, which inhibit the development of conversion technologies. To address this issue, on September 25, 2012, the Board approved a motion directing Public Works, in conjunction with the CEO, to work with the County Sanitation Districts of Los Angeles County (CSD) and other key stakeholders to:

- actively pursue and support the passage of State and Federal legislation and regulations that would establish a clear pathway to encourage the development of conversion technologies, including clarification of the definition of conversion technologies and ensuring they qualify for appropriate incentives for producing renewable energy, reducing landfill disposal, and producing low-carbon fuels.
- support legislation to provide renewable energy status and to continue to provide diversion credits and other incentives for energy production at existing facilities in the County that generate energy from waste.
- outreach to State agencies and other stakeholders to share information on the technical performance and multifaceted benefits of conversion technologies, such as their role in meeting the solid waste management needs of local jurisdictions, producing green fuels, and reducing greenhouse gas emissions.
- work with conversion technology companies to identify potential regulatory changes that are necessary to streamline the permitting process to allow conversion technology facilities to flourish in California while complying with California's strict environmental standards.

3 Conversion Technology Legislation

During this reporting period, Public Works, working in coordination with the County's legislative advocates in Sacramento and CSAC, successfully pursued the passage of SB 498. SB 498, formerly a green chemistry bill, was revised by Senator Ricardo Lara as a second attempt at passing a conversion technology bill similar to Senate Bill 804 (SB 804), which was vetoed by Governor Edmund G. Brown in late 2013. Governor Brown indicated that while he agreed with the intent of SB 804, he found some of the language to be unworkable. The language in SB 498 was developed by the County and CSAC following discussions with the California Department of Resources Recycling and Recovery (CalRecycle) and key Sacramento stakeholders, which reconciled the needs and objectives of these stakeholders while addressing Governor Brown's concerns.

State law formerly defined “biomass conversion” as the controlled combustion of organic materials, such as wood, lawn and garden clippings, agricultural waste, leaves, tree pruning, and non-recyclable paper, when separated from other solid waste and used for producing electricity or heat. SB 498 added “conversion technologies” to the definition of “biomass conversion,” allowing for cleaner and more efficient noncombustion thermal technologies to be used to convert biomass into fuels and products in addition to heat and/or electricity.

This bill was supported by many stakeholders, such as the City of Torrance, City of Vernon, County of Santa Barbara, County of Ventura, Rural County Representatives of California, Anaergia Services, and JFE Engineering America, Inc. As a result, SB 498 was passed by the legislature and signed into law by Governor Brown on September 28, 2014. This is the first successful legislative effort to add the term “conversion technologies” to State statute.

4 Public Outreach

The success of SB 498 is due in large part to Public Works’ and County’s legislative advocates’ outreach to various public and private stakeholders seeking input on SB 498’s language as well as requesting support for the bill as it moved through the State Legislature. Key outreach activities included drafting model support letters, sending out updates through the monthly conversion technology e-newsletter, and conducting meetings with key stakeholders and the County’s legislative advocates.

5 Grant Opportunities

Public Works continually researches State and Federal grant opportunities to support and advance the County’s Conversion Technology Program. Grants would offset facility development and/or operational costs, provide additional resources, and potentially spur project development in the region.

On June 20, 2014, Governor Brown signed the State’s 2014-15 budget which includes $832 million in cap-and-trade revenue. CalRecycle has received three percent of that allotment to implement their 2014-15 CalRecycle Greenhouse Gas Reduction Grant & Loan Program. This program will provide $25 million in financial incentives for capital investments that expand the waste management infrastructure in order to reduce greenhouse gas emissions. CalRecycle will be in charge of administering this program.

Grants and loans would be targeted to build or expand organics infrastructure, such as composting and anaerobic digestion or reduce food waste in California. This program will target other activities as well, including new or expanded infrastructure for manufacturing products with recycled content fiber, plastic, or glass.

6 Technical and Project Development Consulting Services

The technical consulting services contract with Alternative Services Incorporated expired in May 2014. This contract provided technical consulting services to Public Works since May 2010.

In May 2014, Public Works released a Request for Proposals from qualified firms to provide environmental consultant services to assist Public Works in developing resources and coordinating activities to further the development of conversion technology facilities in the County. The consulting services would be divided into two parts: 1) stakeholder resources and education and 2) planning elements needed to successfully develop projects in Los Angeles County.

Part I: Resources and Education Tasks

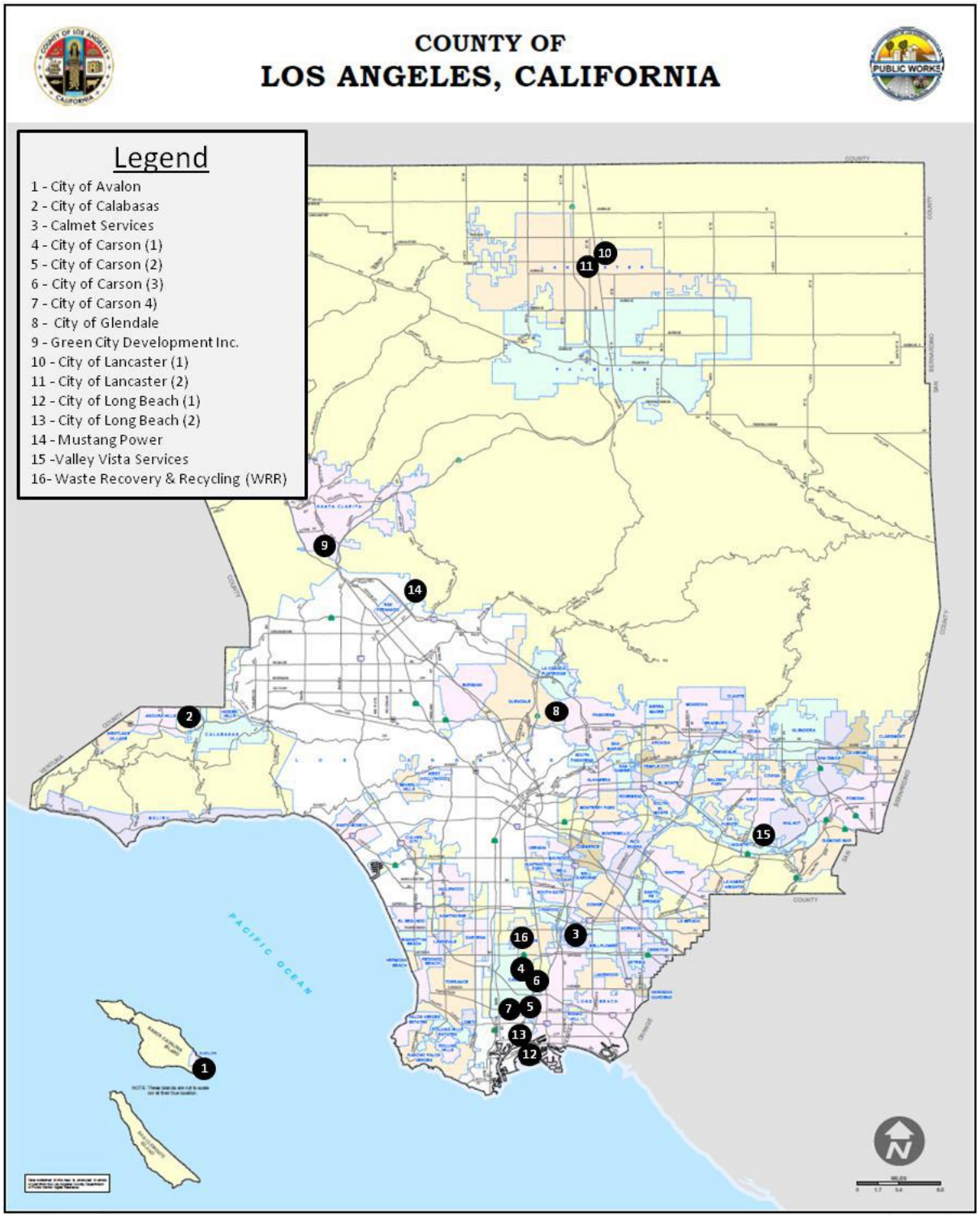
- Coordinate Annual Conversion Technology Conference
- Write position papers, op-eds, and factsheets
- Conduct outreach to decision makers
- Maintain technology vendor and financial firm database
- End product market research

Part II: Project Planning and Implementation Tasks

- Project Planning E-Guide
- Feasibility studies
- Contract assessment

Public Works received four proposals, evaluated the proposals which met the minimum requirements utilizing an informed methodology. The contract award package is currently being prepared. Board consideration is anticipated by November 2014.

Figure 1: Potential Conversion Technology Sites in Los Angeles County



Locations of the 16 proposed conversion technology sites are identified by the markers on the map of Los Angeles County. For more information, contact the County of Los Angeles Department of Public Works at (626) 458–4991.

7 Update on Project Development

Public Works continues to assist stakeholders with developing conversion technology projects within the County. Below is a summary of all the projects that have expressed interest in working with the County through our program:

7.1 Perris Materials Recovery Facility, CR&R Incorporated

CR&R Waste and Recycling Services, a local solid waste management company, began construction of a 150-ton-per-day anaerobic digestion project at their Perris Materials Recovery Facility and Transfer Station in Riverside County, in June 2014. Eisenmann is the project's digester supplier and Greenlane is providing the gas upgrade equipment necessary to beneficially utilize the biogas generated by the project.

Public Works actively assisted CR&R in pursuing funding for the facility. In March 2014 Public Works sent a letter of support to the California Energy Commission on behalf of CR&R requesting supplemental grant funding for the project. In January 2011 the company received $4.5 million through the Assembly Bill 118 alternative fuel vehicle program. The project has also been successful in obtaining two additional grants from the California Energy Commission and South Coast Air Quality Management District to pay for a portion of the renewable natural gas fueling station that will be located onsite for fueling the company's hauling fleet.

On February 25, 2014, the Costa Mesa Sanitary District Board of Directors approved a six-year "evergreen" contract (i.e., automatically renewed at the end of that period) with CR&R. Green waste and food waste from Costa Mesa residents will be sent to the facility once it is complete. The City's organics program is estimated to cost about $500,000 a year. While customer rates have not been determined, district officials have approximately a $4 million reserve fund to pay for the program initially and may choose to implement small and gradual rate hikes to cover the costs.

7.2 Joint Water Pollution Control Plant, County Sanitation District/ Waste Management

Located in the City of Carson, the Joint Water Pollution Control Plant is owned and operated by CSD. This location was proposed by the City of Carson as a potential location for a conversion technology facility in 2010 when Public Works issued an invitation to site owners and operators to participate in the County's program. Since that time, CSD and Waste Management have partnered to roll out a food waste digestion project at the site. The project began as a pilot project utilizing CSD's existing wastewater treatment digesters and 84 tons per day of preconsumer food waste supplied by Waste Management. Following a 2- to 3-year demonstration period, CSD and Waste Management will determine if a continued partnership will be pursued.

7.3 Pebbly Beach Landfill, City of Avalon

The City of Avalon is currently pursuing a major renovation of their wastewater treatment system and secondary water supply system, which currently utilizes seawater. The City is interested in utilizing tertiary treated wastewater in place of seawater, once the retrofit of their existing system is in place. There is an opportunity to incorporate an anaerobic digestion project for organic waste management as a part of this new system, which the City is exploring. The City has yet to make a decision regarding the development of a Request for Proposal for a small conversion technology facility at the Pebbly Beach Landfill on Catalina Island. Public Works remains interested and available to assist the City in securing necessary grant funding for a project or conducting additional feasibility assessments, depending on the City's goals and objectives.

7.4 Lancaster Landfill, Waste Management, Inc.

Condition 101 of Conditional Use Permit 03-170 (5) for the Waste Management owned Lancaster Landfill provides for the development of a conversion technology facility by Waste Management at the Lancaster Landfill.

On July 10, 2013, Waste Management issued an Invitation-Only Request for Proposals for a green waste and food waste processing facility on designated land within the boundaries of Waste Management's Lancaster Landfill located in the unincorporated region of the County near the City of Lancaster. Waste Management has secured initial agreements to move forward with a full-scale composting operation (referred to as the Lancaster Advanced Recycling for Green waste and Organics project aka LARGO). Waste Management has only recently confirmed intent for further development and has not begun permitting or physical construction. However, they are requesting assistance from the conversion technology program with the future permitting of the project.

7.5 South Gate MRF, Interior Removal Specialists (IRS Demo)

Over the past six months, Public Works has met with IRS Demo to identify grant funding to assist in the development of a small-scale thermal conversion technology unit at their construction and demolition recycling facility in South Gate. Public Works has coordinated initial discussions between IRS Demo and several technology vendors listed in the Conversion Technology Online Vendor Database. IRS Demo is currently continuing to evaluate their options and objectives for a project before applying for grant funding.

7.6 Grand Central Recycling and Transfer Station, Valley Vista Services

Grand Central Recycling and Transfer Station is located in the City of Industry and is owned by Valley Vista Services, a solid waste hauler in the County. Over the past year, Valley Vista Services has continued to optimize their 600-ton-per-day mixed waste

Material Recovery Facility for organic feedstock preparation. Onsite Power is the licensee of the UC Davis anaerobic digestion process and has proposed to build a conversion technology project on approximately four acres available at the site. The current focus is on developing a new green waste chipping, grinding, and composting operation. This new facility can provide both feedstock for the proposed anaerobic digestion system and also receive and compost the digestate that comes out of the anaerobic digestion process. The anaerobic digestion portion of the project is still in their future plans but will not be in immediate development.

7.7 Paramount Resource Recycling and Recovery Facility, Calmet Services

Calmet Services, a solid waste hauler in the County, is currently focused on the permitting and development of the Royal Recycling and Transfer Station facility located in Paramount, California. However, they continue to evaluate the feasibility of anaerobic digestion at their existing Paramount Resource Recycling Facility. Royal Recycling and the Paramount Facility are located adjacent to each other and the successful development of the former will provide space within the Paramount Facility campus for the future anaerobic digestion plant. Development of such a project is still likely a few years away while the site continues to make smaller upgrades to comply with new regulations, including making stormwater management improvements. Additionally, Calmet Services would be open to potentially partnering with one of the preferred technologies from the Conversion Technology Online Vendor Database in the future.

7.8 Gardena Material Recovery Facility/Transfer Station, Waste Recovery & Recycling

Waste Resources Inc., a solid waste hauler in the County, is in the process of obtaining permits that would enable them to demonstrate an autoclave, a mechanical conversion technology system, at their existing Material Recovery Facility and Transfer Station in an unincorporated area near Gardena. Installation of the autoclave is expected in 2015. It is anticipated that the facility will be operational for demonstrations and permitting purposes by 2016. Autoclave technology uses high-temperature steam to sterilize and break down the waste, which allows for the separation of clean recyclables and leaves behind the organic fraction of the waste that can be used for anaerobic digestion. The site has the advantage of being co-located with an existing material recovery facility and transfer station facility and can thus make use of the existing infrastructure and processing capability. Once the autoclave is installed and operational, the company will assess the performance and the resultant organic product stream for use in a future back-end conversion technology project.

7.9 City Terrace Material Recovery Facility, Southland Disposal

Southland Disposal is currently in the process of obtaining a Conditional Use Permit for the City Terrace Material Recovery Facility and Transfer Station to increase the amount

of material received from 700 to 1,500 tons per day. When the application was initially submitted in January 2012, the project description contained a small anaerobic digestion facility (15-20 tons per day). However, this component of the project has been put on hold due to space limitations as well as the complexity of the permitting effort. A revised project description was submitted in September 2012 and the initial study is currently being circulated. Once they have accomplished their primary goal of material recovery facility expansion, it is expected that they will reconsider the conversion technology component at the City Terrace Material Recovery Facility.

7.10 Lopez Canyon, Mustang Power

Mustang Power, a conversion technology development company and the selected vendor in Santa Barbara County, has proposed a 36-acre site that it owns for a project. The site is available and is located near the Lopez Canyon Landfill in the unincorporated Los Angeles County. The site is currently being used for storage and as a trailer park. Project planning and development activities could begin in the near term. However, the identification of waste commitments is needed for a project at this location. Mustang Power is meeting with Los Angeles County staff to continue discussions regarding a number of potential opportunities. Mustang Power indicated that they have the time, capacity, and interest to develop a project in Los Angeles County. Additionally, they have been working on other opportunities outside the State, in the Northeast and Canada.

7.11 Green City Development, Inc.

Green City Development, Inc., has previously proposed two sites for the development of a project. One site is in the City of Santa Clarita and one is in Lopez Canyon. Green City is still very interested in developing a project at one of these sites, but does not currently have a technology vendor. The Conversion Technology Online Vendor Database on the County's website was discussed as a means of helping to identify a vendor that may be a good match for the site.

The Santa Clarita property is a former oil drilling site that occupies a total of 115-acres. This brownfield site is accessible from the I-210, SR-14, and I-5 freeways and is not within close proximity to residential neighborhoods. The property owner had been discussing potential project options with a technology vendor for the site. However, the vendor's financing has fallen through and the site is still available.

The second site is a 40-acre parcel of land in Lopez Canyon. Green City's primary concern with this site is the current zoning. The site is zoned A-2, Heavy Agriculture, so a Conditional Use Permit and possibly a zone variance would be required to develop a material recovery facility and conversion technology project on the property. Green City is interested in having the site rezoned as M-2 to facilitate a project.

7.12 Pacific Coast Waste & Recycling

Pacific Coast Waste & Recycling partnered with Organic Energy Corporation to form Ecolution. Ecolution was proposing a two-phase, 4,000-ton-per-day material recovery facility and conversion technology facility in the City of Lancaster. According to Mr. Tim Fuller, the president of Ecolution, the material recovery facility is not ready to move forward. The company came to this conclusion since it was unable to obtain sufficient waste supply agreements to make it profitable. Ecolution is currently focused on developing a project in Texas. The Lancaster project has been removed from the list of potential conversion technology projects.

7.13 City of Glendale Scholl Canyon Landfill

The Scholl Canyon Landfill is located in the City of Glendale on property owned jointly by the City (90 percent) and the County (10 percent). Public Works has provided information and assistance to the City of Glendale for a conversion technology project at the Landfill. The City hired a consultant to assist with site and technology assessments and to conduct procurement and project development activities. Public Works and CSD staff participated in the City's technical review of proposals. Public Works continues to support Glendale's project development efforts on an as-needed basis. The City recently released a Draft Environmental Impact Report (DEIR) for the purpose of expansion of the Scholl Canyon Landfill. However, the DEIR does not include plans for a conversion technology facility. Rather, the alternative analysis of the DEIR includes a discussion of consideration of proposals for an anaerobic digestion project at the landfill that would be separate from the expansion proposal.

7.14 City of Carson Public Works Yard or other potential sites

The City of Carson owns a 14-acre parcel that is currently used to house the City's public works operations. The City intends to relocate these operations, which would make this site available for a possible conversion technology project. This process could take up to 3 years to complete. In addition to this site, the City is in discussions with two large oil refineries in the City, who may be interested in developing an integrated conversion technology project within their complex. The County is currently working with Interstate Waste Technologies to set up meetings with the City of Carson to discuss a potential waste to fuels facility in the City.

8 Integrated Conversion Technology Facility White Paper

Public Works is evaluating comments received during the peer review process for a draft conversion technology White Paper designed to provide policy makers with information regarding the relative impact of managing residual solid waste via typical solid waste landfill disposal compared to an integrated conversion technology facility. The White Paper includes a high-level analysis of the greenhouse gas and other environmental impacts relating to the transport of waste for landfill disposal, in

comparison to managing the residual solid waste onsite using anaerobic digestion and gasification. The preliminary results show significant net environmental benefits associated with managing waste through an integrated conversion technology facility. The comments from the peer reviews are being incorporated into the White Paper by the technical consultant and the finalized document will be reviewed by Public Works before it is released to the public.

9 Next Steps

On April 22, 2014, the Board adopted a motion directing the development of a Roadmap to achieve a Sustainable Waste Management Future for the County unincorporated communities. The Roadmap was adopted by the Board on October 21, 2014. Conversion technologies are one component of the long-term strategy to meet the disposal reduction targets identified in the Roadmap. Public Works will continue to support conversion technologies as described in this status update. Upon adoption of the Roadmap, subsequent updates will be submitted to the Board as part of the Roadmap status reports. To further conversion technologies, Public Works will:

- work in concert with the County's legislative advocates and other stakeholders, actively engage on multiple fronts to implement the Board's directives to advance conversion technology legislation in the State and create a clear pathway for their development, building on the success of SB 498.
- request to award a contract for consultant services for the Advanced Conversion Technology Services Project.
- continue to participate in the stakeholder process for Statewide solid waste plans currently being developed by CalRecycle and the California Air Resources Board.
- continue to research potential State and Federal grant opportunities that support the development of conversion technologies.
- conduct planning efforts as appropriate for the County-based projects as well as monitor the CR&R project.
- expand the online databases to include pre- and post-processing technologies.
- finalize/publicize the Integrated Conversion Technology Facility White Paper.
- continue to work with stakeholders interested in developing projects in the County.